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ORIGINAL ARTICLES.

THE POSSIBILITIES OF MEDICAL ORGANIZATION.*

BY W. G. MOORE, M. D., St. Louis.

Gentlemen of the Missouri State Medical Association:

The exalted position to which you have raised me makes it my duty to address you upon this occasion.

I have chosen for my subject that which lies, or should lie, closest to the heart of every physician who holds dear the honor of his calling—the possibilities of medical organization and the benefits therefrom. From the beginning of history until now the great achievements of men, whether social, religious or political, have been the results of organized effort. This is pre-eminently the age for systematizing the factors which make up the complex known as society—the state or the nation if you please.

An organization may be for good or evil purpose, thereby meriting the approval or disapproval of right-thinking men. Upon first thought it would seem that no one could sanely oppose the organization of a scientific body, since it is knowledge methodically arranged for the benefit not only of those who possess it but those

as well who are ignorant of its blessings.

There are those among us who must be protected against themselves. Those who follow error rather than truth from their very nature. Science is the guiding genius who points the way to the betterment of mankind.

Of all men none are so liberal-minded and generous as true scientists—truth seekers. Judged by this standard there is no class of society who can better lay claim to the right to organize, with the full approval and co-operation of their fellows, than the medical profession, for I submit that none have added so much to human happiness by abolishing or mitigating human woes.

Do we ever stop to consider the magnitude of their work! Medical science has overcome many of the diseases which in the past decimated communities with the blowing of their lethal breath upon the strong and the weak, the old and the young, the Christian and pagan alike.

Let us state some facts in this communication—not theories—but facts,

* President's address.

as demonstrable and immutable as the sun which proclaims the day. Asiatic cholera, smallpox, malarial fevers, typhus fever, yellow fever and that greatest of all infantile destroyers, diphtheria, have lost their terrors and are now for the most part hideous dreams of the past. Smallpox, through the genius of the deathless Jenner, has become an impotent thing, and yet we see banded together now and then a lot of disjointed, disgruntled, disgusting pretenders calling themselves antivaccinationists, and raising their puny voices against the indisputable facts of history because they do not believe in them. As well allow the smallpox patient to roam at large because *he* didn't believe it was contagious. I believe in compulsory vaccination in order that these doubting Thomases may be protected against themselves and the community protected from them.

Not less terrible than Asiatic cholera or smallpox was yellow fever—especially to our Southland. How few and short the years since it spread desolation and terror not alone over the sunny south but the frozen north as well. How it paralyzed commerce and caused its panic-stricken citizens to flee for refuge to every quarter offering an asylum. But what of it now? When the United States, after thoroughly masticating Cuba (the very incubator of yellow fever), concluded to “benevolently assimilate her,” this disease was by far the greatest barrier that stood upon the threshold. “Grim-visaged war had smoothed her wrinkled front,” and with all her pomp and noise and splendor, had retired to receive the plaudits of their country-

men—they left behind one enemy who was proof against all their munitions and strategies of glorious war. This was “Yellow Jack.”

And what is the story now! There was a little handful of medical men sent down by the government to seek out the cause of yellow fever and if possible remove it. Did these heroes go heralded by flying banners and braying trumpets into this valley of death? No, there was not even the “vile squealing of a wry-necked fife” to tell of their departure or arrival. They simply “folded their tents like the Arabs and silently stole away.”

What did they do? They lost no time in locating the poison in our old friend the mosquito, found his habitat to be the stagnant ponds and streams, poured oil upon the troubled waters, gave orders to their servants to clean up Cuba and *keep* her clean, packed up their microscopes and came as silently as the shadows of the night to give an account of their stewardship to those who sent them. Indeed,

The wise physician skilled our wounds to heal
Is more than armies to the public weal.

These gentlemen were your professional brethren. Do you even know so much of them as their names? Every name among them should be graven upon a shaft to pierce the clouds to be looked up to and revered by their countrymen. Gentlemen, there is something pathetic in the quiet, humble way in which this great deed was done. It was of more importance to the United States and the world than all the army had done—it has saved and will continue to save untold thousands of lives, and “has made the desert blossom as the rose.”

That the names of this immortal board shall not sink further into oblivion than they have been allowed to do by an ungrateful government, let us record them here as follows: Major Walter Reed, U. S. A.; Dr. James Carroll, contract surgeon, U. S. A.; Dr. A. Agramonte, contract surgeon, U. S. A., and Dr. Jesse W. Lazear, contract surgeon, U. S. A.

Of the number Major Reed and Dr. Lazear are dead. The former, so young and full of promise, succumbed to an operation for appendicitis, and the latter younger still, bared his arm and deliberately allowed an infected mosquito to inject the poison of yellow fever into his circulation and died that others might live. History does not recall a more Christ-like sacrifice than this and time cannot eclipse it. He has lighted a torch for the guidance of men which can never be extinguished. No peons of praise can ever be sung to make his rest more tranquil or more profoundly secure in the hearts of those who love noble deeds.

A monument could be raised of stones bearing the names of medical heroes to reach the sky and the smile of heaven would fall earliest upon the one inscribed with the name of the lost and lamented Lazear.

This is but a fraction of what medicine has accomplished and will accomplish, while the feats of surgery are actually so marvelous as to be bewildering to human understanding. Already numberless lives are being saved by the early and intelligent treatment of consumption, and that other dread destroyer, cancer, is being mitigated if not cured.

In the light of these glorious facts, I ask you, gentlemen, to remember that it all happened before Christian Science and Osteopathy were born—aye, before an Eddy ever whirled in the “moonshine” still of Missouri.

Now look at that picture and on this. Imagine, if you can, a rickety, bow-legged and somewhat hydrocephalic cretin, styling himself an Osteopath, and leading by the hand a timid, ethereal spinster whom he introduces as Christian Science, appearing before an audience in this twentieth century—the one declaring all disease has its origin in the bones, while the other in a tenor key shrieks that “there is no such thing as disease;” that Virchow, Pasteur, and all the great pathologists of the past, were only fakirs, and that “I am the way, the truth and the light,” and “thou shalt have no other gods before me!”

And how did such a ridiculous monstrosity ever get before the foot-lights legally. The rubbers, leg-pullers and most ignorant quacks of all time, a few short years since, came before a governor of this state with a bill asking to become legalized practitioners of medicine. The governor promptly refused on the ground that they had no scientific standing. They were similarly treated by Governor Tanner, of Illinois. They bided their time, working up political strength until another campaign was on, when they promised to trade their votes for gubernatorial signatures, so we are told. At any rate their bill was signed, and with the same pen-stroke there was foisted upon the public the most ignorant and pretentious set of quacks the world ever saw. If there

had never occurred any other reason why the doctors of Missouri should organize, that one act is sufficient cause.

Then came Christian Scientists before still another governor, asking to become licensed practitioners. They were refused to be allowed to sign death certificates—all else being granted, we believe. They have neither pathology, materia medica, nor surgery, and draw their therapeutics by unseen hands from a storehouse somewhere hidden away in that “undiscovered country from whose bourne no traveler returns.” Theirs is truly an occult science, hidden too deeply for ordinary mortals to see or understand.

But how shall the medical profession escape further degradation at the hands of future governors and legislators? By realizing the fact that if the 6,500 doctors of this state become organized they can dictate to their creatures what they shall do. They would be the most powerful organization in Missouri. The ballot is our remedy. It should be used wisely and justly. There is no higher office than the making of good laws or unmaking bad ones.

Doctors are not considered because they do not make themselves felt. We all know nothing is more important to the body politic than sanitation. Yet a short time since when the Panama Canal Commission, a body so directly concerned in the health of the thousands employed in the construction work, was being appointed, we would suppose (naturally) one or more physicians would have been suggested to the President; but none was appointed or thought of, so

far as we are informed, although this occurred in the twilight of the splendid days in Cuba, when science (Foraker and Still) so brilliantly demonstrated her triumph over disease and death.

A writer in one of our daily papers recently commented upon the fact that colleges continued to turn out large numbers of young doctors “for which there was no use, since the profession had already stamped out epidemics and taught the people how to live sanitary lives.” There is a world of truth in this trite observation. We are the only men on earth who are continually striving to limit the source of our revenue for the benefit of others.

Doctors are peculiarly well-fitted to become legislators, for the reason that they are closest to the real lives of all classes of society, and know their necessities better than any other profession or calling. Moreover, they are trained in a school of better moral atmosphere than any other class except the clergy, perhaps, and in point of intelligence are the equals of any. If you doubt any of these statements, I beg you to go and look upon any legislative body in our country, from the United States Senate down to the humblest, and then compare them with the assembly of the American Medical Association or the representative state associations, and your doubts will vanish like a dream of the night.

These statements are not theories without precedent for a basis, for the medical profession is largely represented in the legislative bodies of Europe, and reaping their share of honors bestowed by their countrymen.

If any of you are recalling some of the scenes you have witnessed and saying politics "is too low down for you," I ask you to remember that it was in the arena of statesmanship that the great Virchow was scarcely less distinguished than in the laboratories of science. There is no higher calling than the making of wise and just laws for the betterment of our fellows, and none lower than the tricky combinations to take for a few what is rightfully the inheritance of us all. In all the galaxy of great men who signed the Declaration of Independence, there were few, if any, greater than Dr. Benjamin Rush, and scores of his professional brethren have shown brilliantly in places of honor.

Sanitation is not second to any consideration affecting the welfare of men, and doctors are peerless as sanitarians. In fact, they have made it what and all it is today. But you say, what are we asked to organize for, what do we get for it?

You will recall that, if history is to be credited, this human family of ours got a bad start. The original pair in that garden, which has ever epitomized the bountiful and beautiful, fell victims to the blandishments of a serpent—and lost Paradise. Their first born pair were boys—Cain, and Abel, his brother. Of this first offspring, fifty per cent. were not only a murderer, but a fratricide and liar. This is as true as Holy Writ, and when in jealous rage Cain slew his brother and hid his body, and the Lord asked him, "Where is Abel, thy brother?" the answer then given has come down through the ages to this present hour, and is ever ready when men wish to

evade responsibility for their evil deeds and neglect to do that which is right toward their brethren. You remember the answer, "I know not; am I my brother's keeper?"

It is to be expected that the Cains have descended through every generation, and find their most perfect typification in that thing which we call the quack doctor of the present day. Therefore, one of our first reasons for organization is to rid the community of advertising quacks, ignorant, soulless wretches, who prey upon the sick and unfortunate when they are weakened in mind and in body—a condition which would appeal to the compassion of an hyena or jackal, but only invites the greed of a quack because of its helplessness.

There is one statement you may put down *always* as unfailingly false—that is the statement of an advertising quack. Whence comes the power of these men for evil? It comes as surely from the secular and religious press as that light comes from the sun; and, in proportion to the circulation, far more from the religious than from the un-Godly periodicals and papers, because the unthinking reader is far readier to believe in the rectitude of the one than the other. The press is the most powerful agent for good and evil known to men. How basely some organs use this power! How nobly others come to the rescue of the helpless! Why do the great metropolitan papers advertise these renegades to cure cancer, valvular disease of the heart, locomotor ataxia and other diseases which the editors know are incurable—why?—for money, only this and nothing more, nothing less. If one of these same editors had any of

the above diseases, the last idea that would ever come to his mind would be to ask treatment of one of the fakirs which he so glowingly commends to the poor deluded subscriber who has trusted him. Would any minister of the Gospel take his wife or daughter to the coarse wretch he so graciously presents through his paper to those of his flock who support and uphold his church and pay his salary? Never! He would hie him to some quiet, studious gentleman who would treat him without money and without price—for sweet charity's sake.

I beg you gentlemen think of these outrages against not yourselves so much as against the poor, uneducated masses who believe what they see in print. "Father, forgive them, for they know not what they do!"

What are they doing when they advertise quacks and patent medicines? Besides destroying the only opportunity left to many sick persons for regaining health before it is too late, they are making drunkards and drug fiends in every walk of life and in both sexes. Is it any wonder that drunkenness among women in our own country is alarmingly on the increase when, as shown by the state analyst of Massachusetts and ably commented upon editorially by Edward Bok, of the *Ladies' Home Journal*, that every single one of the widely advertised spring tonics, beautifiers and specifics of various kinds contain from 15 to 44.5 per cent. of alcohol. Cocaine also adds its fiendish influence to that of morphine and alcohol in some of these cure-alls. Is it any wonder that crime is rampant in all its forms?

But some say, "admitting the truth

of these facts, do you believe anything can be done against the religious and secular press?" Yes; I know it can, because it has been made impossible in Kentucky for any form of quackery to be advertised or practiced openly (save one). "How will we do it?" By organizing as we should, have a legislative member or committee of doctors to watch the work at the capitol and by serving notice upon candidates what we intend to do. Make no appeals—but demands.

An intelligent and reliable young man who traveled in the South for one of the wealthiest wholesale drug houses in St. Louis, told me that certain drug stores were known as "dope stores" because of their enormous sale of morphine, cocaine and similar remedies. These are dispensed over the counter without a prescription to any irresponsible white or negro man or woman. Who knows how many of the fiendish crimes that are constantly being perpetrated are due to this shameless practice?

The millionaire proprietor of this same wholesale firm instructed his young salesman to look after the "dope stores" especially and spare no effort to outbid his competitors for their patronage.

A few years ago a notorious infanticide—or child killer—was arraigned in our courts for causing the death of one or more women by criminal practice. What was the result? A nine-days' wonder in the minds of some people at her atrocity, the advertisement to every man and woman of her place of business and its kind, an acquittal or perhaps some trifling fine to be paid with blood money, and then the resumption of business at the

same old stand — which continues today without molestation. And this monster dares to style herself a doctor.

Gentlemen of the Missouri State Medical Association, we have not been doing our duty and we will not until we rise in our might and wipe the last vestige of this disgraceful business off the face of the earth!

Someone says, "well, it's the fault of the law—what have we to do with it? We didn't make the laws." No, but you should have done it. Have you ever looked into the faces of men who did make them? Have you ever seen any state legislature in session—especially the delegation sent from large cities or towns? If you have then I need not tell you how forlorn the hope of reform from such a source is, nor why the political stream is polluted from end to end. But what can 6,500 doctors do against the entrenched hosts of debauchery? I answer, do what the heroes of ancient times have done as well as those of to-day—create a sentiment based only upon right—go before the people and proclaim it from the housetops if need be that justice must prevail whatever the cost, and be assured that some David will be raised up among us to fight and slay the giant corruption.

If you lack courage and are faint hearted, think of Jacob Riis, of New York, who came to that city from a foreign land and out of the deep convictions of his noble heart dared to tell the four hundred, as well as all the balance of the Gothamites, "How the other half live." Then he attacked the hardest proposition in human nature—the money shark—and showed how, in the hell holes they called

tenements from which they exacted the hard-earned dollars from the poverty stricken men and women, 60 per cent. of whose children died in these dark, reeking pest holes before they reached the age of one year. He called to his aid the doctors and then one class of citizens after another until popular opinion would rest no longer and demanded that these charnal houses give way to sanitary, habitable dwellings wherein the mortality fell from 60 to 12 or 15 per cent.

For this and other similar work the president of the United States proclaims him the most useful citizen of all the millions in New York. A glorious title, most gloriously won.

Men who would undertake true reform must have no axes to grind. Personal selfishness must be left out of consideration, and a sense of serene satisfaction from work well done must be the goal striven for.

Only a few years ago the offices of Coroner and Health Commissioner were filled by laymen in this city—political plums to political henchmen without the slightest regard to fitness or public welfare. To contemplate such a condition is cause for righteous contempt for the powers that were—and our own masterly inactivity.

Is it any wonder when such facts are remembered that one of the most notorious quacks has been a state appointee of two governors of imperial Missouri?

Verily, gentlemen, the medical Sampson has lain down in the lap of Delilah, who has shorn his locks and turned him over to his enemies. May he pull down the temple to his own and their destruction before he goes further to degradation!

You will recall a memorable occasion on which the mice held a council as to the propriety of belling the cat. All agreed that it should be done forthwith, but when the volunteers were called for each went scurrying to his respective hole for safety. From that day to this mice have been a synonym for impotent men, hence the abjuration, "be a man or a mouse."

Finally, gentlemen, how shall we proceed against the manifold evils already hinted at and the multitude not referred to? First, by the establishment of an organ of communication to be the co-partnership property of every member of the Missouri State Medical Association—our journal—to be known as the *Journal of the Missouri State Medical Association*, edited in the interest of every worthy cause or individual whose mission is to uplift the real medical profession, whether from a scientific, social or political standpoint. A medium through which thousands of interesting medical events, now lost in oblivion, may be communicated to physicians everywhere and at the same time be a stimulus to become accurate in work done and faithfully record mistakes along with failures. A means by which meritorious articles can be advertised and into which no spurious quackery can ever enter. A journal ever ready, not only to assist the right but also resist the wrong. To keep the brotherhood in sympathetic touch, one with another. A clarion to call together the clans to defeat and prevent farther humiliations upon us by governors, senates, legislatures, or any other enemies without or within.

For the maintenance of this journal we must not depend upon any but

those who love the cause and are willing to make sacrifices for it. There is a noble yeomanry in the rural medical profession of our state which can be relied upon in every hour of peril, and there are urban dwellers just as enthusiastic and trustworthy as they.

The history of other states proves the feasibility and desirability of each state association having its own journal. New York, Pennsylvania, Kentucky, Illinois, Michigan, Colorado and California have solved the question to their entire satisfaction, and Missouri will do likewise. These state journals should be to their medical citizens what the *Journal of the American Medical Association* is to the doctors of our country. Once fully organized and working harmoniously they need not ask for concessions, but demand them. The state journal must keep on the watch tower to see that no enemy gets within our ranks and if any pass the sentry by stealth, point him out, be he of high or low degree. They should demand that no medicine be made or sold in any of the states without the full contents be printed upon labels and placed upon the bottles, that these medicines should at all times be subject to examination by competent examiners appointed by the state and, if they fail to comply with the advertised formula, their sale be prohibited. That nostrums be placed in their true light and the laity taught how dangerous they really are.

Let the state of Missouri and all others thoroughly organized follow the example of the Indian Territory and prohibit the sale of Peruna and its damnable kind. It was observed in the Territory that a few doses of

this precious stuff set the bucks to doing war jigs, and their white fellow-citizens developed strong tendencies to go upon the warpath. The cause is plain enough, for the Massachusetts state board analyst tells us in a published document that it contains 28.5 per cent. alcohol. It is also clear to us why so many of the editors and preachers who advertise it become bleary eyed and red nosed. To judge from our Sunday papers we must conclude that our congressmen are the most catarrhal set under the sun and each is being treated from a demijohn of Peruna. This is the sweet scented bunch who make our laws.

In this connection I wish to quote a few more percentages. Lydia Pinkham's vegetable compound, especially recommended by the W. C. T. U., contains 20.6 per cent.; Paine's celery compound, 21 per cent.; Colden's liquid beef extract, "recommended for the cure of the alcoholic habit," has 26.5; Parker's tonic, "purely vegetable," 41.6; Warner's safe tonic bitters, 35.7 per cent.—this to be given in kidney diseases, where alcohol is admittedly the worst thing possible; but "Kaufman's sulphur bitters" is the gem of the constellation. The makers say it "contains no alcohol," when the fact is, according to the analyst, it contains 20.5 per cent. of alcohol, and no sulphur at all.

These are the remedies so highly recommended to the deluded public by the powerful press. They are the nurseries of inebriety. We should demand that incessant warfare be waged against the pharmacist prescribers over the counter for condi-

tions about which they know nothing. That state boards be clothed with legal powers commensurate with their dignity and importance and not be hampered as they have been in the past—rendering them merely a nominal institution of the state.

We should insist upon the enacting of laws that will place the charitable institutions of the state at the disposal of the medical profession for the purposes of clinical instruction wherever possible.

Nothing is, or can be, more important to our future than the elevation of the standard of medical education, to the end that physicians shall be of that type of mind who find their pleasure in scientific pursuits, and their contentment in the results it brings. They must be above the commercialism of today—that most vulgar member of society, which mars everything it touches but itself.

We should insist upon a thorough training of medical students in therapeutics and pharmacology as the best means possible to prevent them from becoming mere dispensers of proprietary nostrums, thereby clogging the wheels of therapeutic progress until destroyed by its enemies. All that we ask is but our just dues. A benefit to every honest, well meaning citizen of our country whether he live in affluence or poverty, in freedom or captivity, sane or insane. This is no Utopian dream. They are possibilities entirely within our grasp and only require for their accomplishment that each and every one of us knows and does his *whole* duty.

THE CLOSURE OF THE ABDOMINAL WOUND.

BY H. C. DALTON, M. D., St. Louis, Mo.

The diversity of methods and material employed by our leading surgeons in closing cœliotomy incisions, and the large number of ventral hernias that are being constantly reported, lead me to select as a theme for my paper the closure of the abdominal wound.

It is a well known fact that when an incision is made in the abdominal cavity it is impossible to so coapt the divided structures as to secure a degree of strength equal to that existing before the operation.

In view of this axiom it is the object of the surgeon to so reunite the divided tissues as to secure a degree of strength as closely as possible approximating that which originally existed.

There are two great methods of closing a cœliotomy wound, viz. :

1. The through-and-through suture.
2. The layer method.

The former comprises sutures about three-eighths of an inch apart, each taking a little skin, a good bit of muscle and fascia and a little peritoneum.

By the layer method we endeavor to bring together similar structures; thus, the peritoneum is joined to the peritoneum, fascia to fascia, muscle to muscle, and skin to skin.

The practice of our leading surgeons is so varied regarding the abdominal closure that it may be well to dwell for a few moments on the different opinions that exist among them.

Thus, Deaver believes that better union can be secured if more attention be paid to the line of incision; that the incision should not be made through the median or semi-median lines, but rather through the adjacent part of the rectus muscle. In cases where the abdomen is not so obese he uses the through-and-through suture, but if there be a good deal of fat he prefers the layer method. In the former suture he prefers the method of Price, *i. e.*, taking little skin, much muscle and fascia and a small amount of peritoneum. For the layer suture his preference is for the buried silver wire, and states that in his experience it does not give trouble.

Maurice H. Richardson, of Boston, states that while the through-and-through suture does not secure absolute apposition, it is a question if its accuracy is not sufficient for all practical purposes. He believes that a strong inelastic cicatrix depends more upon primary aseptic healing than upon any other factor. He points out that in the layer suture one disadvantage is that effusions of blood or serum may form between the layers and render infection liable. The through-and-through suture, on the other hand, prevents effusions of any kind, and if infection takes place it must occur in the entire tract or between too tightly approximated surfaces. He is convinced that early separation of the surfaces has a great deal more to do with the occurrence of hernia than the stretching of the scar.

In applying the sutures he threads at both ends and brings the suture from the inside, thereby lessening the danger of infection from the skin. He advises recumbency for four weeks in all cases of doubtful wound strength, and the avoidance of any labor that would increase tension on the scar for at least three months.

In the Johns Hopkins Hospital, while no definite plan is strictly adhered to, the closure is usually made by using fine silk for the peritoneum; the muscle, after splitting the capsule, is joined by interrupted heavy silk, fascia by continuous silk and skin by subcutaneous silk wire.

By splitting the capsule is meant that in making a median incision they do not go through the linea alba, but always through the rectus muscle. Also in a lateral longitudinal incision, instead of going just outside the rectus muscle they go through it. Thus the sheath is opened, and when the closure is made the peritoneum is first sutured; next the posterior sheath, then the muscle itself, then the anterior sheath and last of all the skin.

Edwin S. Ricketts, of Cincinnati, believes that through-and-through sutures of silk worm gut, with interrupted silk sutures of the peritoneum, will permit us to attain nearer ideal results than any other method.

Chas. Davison, of Chicago, has employed an ingenious method of suturing with silk worm gut. He makes a continuous suture for the peritoneum, one for muscle and fascia and one for the skin. The ends of the sutures are left out, and each stained a different color to differentiate the layer to which it belongs.

Chas. P. Noble, of Philadelphia,

says that the objections to the through-and-through method are the relative frequency of hernia following its employment, and the relative high percentage of wound infection and stitch-hole abscesses. This is more especially the case in fat subjects, where the component parts of the abdominal wall cannot be accurately approximated, and more especially the continuity aponeurosis of the transversalis muscle restored.

He thinks many stitch-hole abscesses are caused by the fact that the stitches are drawn too tightly in endeavoring to approximate the structures, thereby causing necrosis and a favorable field for germs. He considers that the through-and-through method should be reserved for the small class of cases in which drainage is necessary, and another limited class of cases in which, owing to the general condition of the patient, the saving of even a few minutes in the duration of the operation is of importance. From 1892 to 1897 he employed a row of interrupted silk worm gut sutures at the level of the aponeurosis, uniting the aponeurosis, recti muscles and peritoneum. A second row was employed to unite the skin and subcutaneous fat. Subsequent to 1897 he adopted catgut exclusively in the closure of all abdominal wounds. As a result of these methods he, in 1898, reported 462 cases, with two post-operative hernias. This is truly a most remarkable result, and certainly challenges our admiration. In the peritoneum he uses fine catgut, the aponeurotic sheath of the right rectus is then separated from the muscle by blunt dissection so as to bare the under surface of the aponeurosis. This

is done with medium chromicized catgut. Care is taken to stop all oozing, and the wound is repeatedly washed with salt solution as each layer is put in.

From May, 1898, to October, 1899, 224 celiotomies and Alexander operations were performed in which tier sutures were used. In this series there was suppuration in 1.3 per cent. of cases operated upon. Two cases of hernia occurred in this series, and two cases of delayed suppuration occurred in two tubercular patients, showing that the process of encapsulation, or gradual absorption of chromicized catgut, may be interfered with by weakened vitality.

Winslow, of Seattle, Washington, states that the aponeurosis is the chief factor in preventing hernia. To support this statement, he says, that when the fascia is ruptured we may have protrusion of the muscle with the viscera behind it. He believes that in the through-and-through suture like structures are not accurately approximated, the peritoneum may be separated by bulging muscle, the aponeurosis is not properly coated, the layers are puckered and suffer considerable tension resulting in thinning of the abdominal walls.

Faulty approximation leads to wide scar formation, and its being weak tissue and extending in an unbroken line from peritoneum to skin, often yield readily and give rise to abdominal hernia. He says that while the tier suture secures accurate coaptation and less tension, still it is open to the objection that the lines of the scar from peritoneum to skin are directly over one another, thus leaving the line of incision weak and leading to a

certain number of hernias. To overcome this he mentions the plan of some German operators. They divide various layers in the same parallel lines, but in different vertical planes. Thus the incision in aponeurosis and muscle would not be made in the skin incision, but a little to one side, while that in the peritoneum would not be made immediately beneath the line of division of the fascia and muscle. By this means the deeper scars will have a layer of healthy tissue over them that will add greatly to their strength. Personally he strongly favors the overlapping of the aponeurosis.

Winslow concludes: (1) That the aponeurosis coverings are the chief supporting structures of the abdominal wall. (2) That the approximation by overlapping in doubling the strength of the aponeurotic layers doubles the strength of line of incision. (3) That this being the case and the overlapping method being proved the best mode of curing abdominal hernia, it follows that prevention is better than cure. It is wiser to prevent hernia by employing this principle in closing all abdominal incisions than to be forced to use it to cure post-operative hernia.

In my own surgical experience it has been my plan until recently to close all incisions by the through-and-through sutures. Unfortunately an accurate account of the results could not be obtained as so many of the patients that came under my observation during the six years I was in charge of the St. Louis City Hospital were of a character that rendered subsequent observation impossible. There can be no question, however, that a

very large per cent. had ventral hernia following the operation; indeed, I have seen a number of them and in some have operated for the cure of the hernia.

In the last few years I have done the layer suture in almost all cases. For this purpose I use a fine suture of sterilized catgut for the peritoneum, often including the transversalis fascia. For the muscles and fascia I have used heavy chromicized catgut in the form of mattress suture. The skin is closed by silkworm gut, or a subcutaneous catgut and wound clips. By this method we secure accurate apposition and there is no undue strain on any part. Another object gained by this is that there is no direct channel of infection from the skin, as when a suture runs through it and down into muscle, fascia and peritoneum.

In order to obtain a greater degree of safety against infection I now use rubber gloves as a matter of routine. For the through-and-through suture I always use silkworm gut, and for the tier suture catgut exclusively.

To my mind the great safeguard against hernia is the prevention of infection, for no matter what method we use a large percentage of hernias will follow suppuration in the suture tracts.

All things being equal we are less liable to have hernia in a short incision than in a long one. If the layer suture be used all oozing must be carefully stopped before closure, as any collection of serum or blood makes a soil so favorable to germ life as to endanger our results. When the abdomen is very fat the layer suture should always be used, for, as

particularly pointed out by Noble, the great tension necessary to coapt the divided surfaces causes a certain amount of necrosis and forms a very favorable nidus for germ life.

When time is a potent factor the through-and-through suture should be used in every case. In cases requiring drainage this should be the method of choice also.

Since the peritoneum has been more carefully studied it has become known that drainage is not necessary in the vast majority of cases that were formerly drained, and moreover, that the drain itself forms an avenue of infection that must not be overlooked.

It is my opinion that we will secure better results if we drain less frequently, and devote more attention to our closures, and that under the most rigid asepsis. It goes without saying that every logical mind must recognize the advantage of accurately coapting the divided structures so as to place them in the same relative relation as before the operation. Considering that we have in catgut, as now prepared by some of our leading firms, a material that may be buried with immunity, and that will hold with certainty for a given length of time, I strongly favor the tier suture as a matter of routine.

If we modify the tier suture by overlapping aponeuroses wherever possible, and incising and uniting the various layers in different planes, we may reasonably expect our result to be well nigh ideal.

Grand and Easton avenues.

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A MEMORIAL—DR. ORSINO AYERS WILLIAMS.

BY FRANK J. LUTZ, M. D.

The important services which the late Dr. O. A. Williams, of Versailles, in Morgan county, rendered to the medical profession of the state of Missouri make it imperative that this association pause in its proceedings to render a tribute to his memory.

Dr. Williams was born in West Unity, Williams county, Ohio, on the 21st of August, 1835; he died May 6, 1904. When two years old his family moved from Ohio to Morgan county in Missouri, where young Williams grew to manhood, attending the common schools of Versailles and working on a farm. He read medicine under the late Dr. J. T. McCoy, of Versailles, and in his twentieth year was graduated by the Missouri Medical College, then better known as McDowell's. In 1870 he received an *ad eundem* degree from the St. Louis Medical College. He entered upon the practice of medicine immediately after graduation in Chillicothe, Missouri, and when the war broke out between the north and south he joined General Slack's brigade of Price's army as a surgeon and remained at his post until peace was declared. After the surrender of General Lee, he followed General Joe Shelby into Mexico, where he remained until after the fate of Maximillian was decided. He then returned to his childhood's home and resumed practice in Ver-

sailles where he worked until he breathed his last.

Being a man of fine natural endowments, of close application and of almost instinctive knowledge of disease, linked to great personal kindness and unselfish devotion he soon acquired an extensive practice which spread and continued to grow until it may be safely said that at the time of his demise Dr. Williams was the best known physician in Central Missouri.

He was a successful surgeon, fearless and cautious. He kept himself abreast of the times. No man of his years was more enthusiastic in following the advance guards of surgical learning, no one complied more conscientiously with the canons of modern surgery than did our late associate.

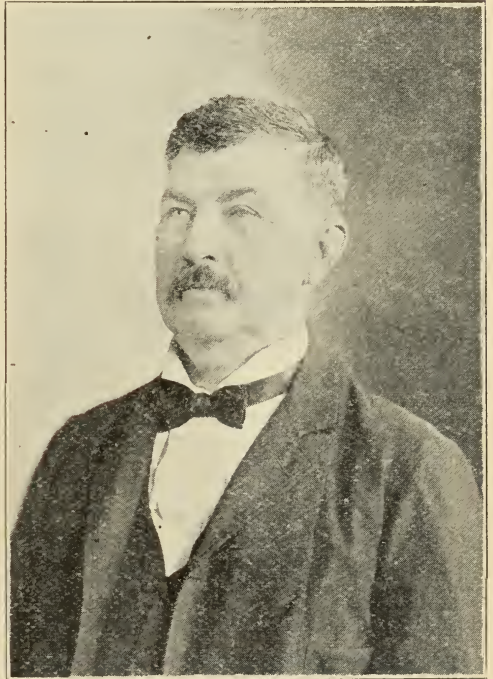
I do not wish, however, to call attention to his professional attainments; I would rather recall on this occasion the services which he rendered to the medical profession of this state, and therefore to the people, in his unassuming, practical way. Those of you who have taken an interest in the many tedious steps which were necessary when first the attempt was made to enact legislation for the protection of the people against quackery and charlatans and the ignorant pretenders in our own ranks, will perhaps also recall some of the strug-

gles that were necessary and some of the sacrifices that were made by the few to whom had been assigned, or who had voluntarily taken up, some of the legislative work. In looking for a suitable person who possessed all the qualifications to successfully carry through the Assembly the desired measure, some champion, persistent, quiet and unobtrusive, with a knowledge of men and the power to conciliate opposition, and who at the same time thoroughly understood and was in sympathy with the efforts of the medical men, the committee asked Dr. Williams to sacrifice his business and his time, and to attempt to become a member of the legislature from his county, for the purpose of carrying out the great plan of the medical profession. Dr. Williams yielded to our importunities, and during the entire session, which he attended faithfully and during which he was ever present and never lost sight of the goal for which we were all striving, without having made a single public speech, it was mainly through his efforts that the law of 1882 was placed upon the statute books, and but very few suspected that the quiet, unassuming country doctor had engineered and had successfully seen enacted what, to others, appeared impossible. His modesty forbade him to make known the part he took in this most essential piece of legislation which marked an important step forward in the progress of public health matters.

Again, later on, he stood as the champion of the regular medical profession, when as a member of the State Board of Health he was so sur-

rounded that it required the greatest pressure from those in whose judgment and loyalty to the medical profession he had the most confidence, to persuade him that the regular profession's interests would be served if one of their number was on guard.

He was the loyal enthusiastic sup-



ORSINO AYERS WILLIAMS.

porter of an organized profession. He came to the meetings of this association when many came and when only a few were gathered together.

I will pass over his personal characteristics. Most of you are as familiar with them as I am. He was a loyal man; he was a good physician; he stood for the best efforts in medicine and gave proof of it in a practical way.

MINUTES OF THE FORTY-SEVENTH ANNUAL MEETING OF THE MISSOURI MEDICAL ASSOCIATION.

FIRST DAY, May 17, 1904.

The forty-seventh annual meeting was called to order by the President at 9:30 A. M.

Mr. Joseph L. Hornsby, President of the City Council, delivered the address of welcome.

Symposium on Tuberculosis:

Dr. George Homan, of St. Louis, being absent, his paper, "Prevention of Tuberculosis," was read by Dr. R. B. H. Gradwohl, St. Louis.

Discussion by Dr. W. McNabb Miller, Columbia.

Dr. William Porter, St. Louis, "Home and Sanatorium Treatment."

Discussion by Dr. W. McNabb Miller, Columbia.

Dr. N. P. Wood, Independence, "Therapeutics."

Discussion by Dr. R. M. Funkhouser, St. Louis.

Dr. R. B. H. Gradwohl, St. Louis, read a paper entitled "Remarks on Bacteria in the Dead Body."

Dr. H. C. Dalton, St. Louis, read a paper entitled "Closure of Wound of Abdomen."

Dr. H. J. Scherck, St. Louis, read a paper entitled "An Analysis of the Dispensary Service of St. Louis."

Dr. A. H. Ohmann-Dumesnil, St. Louis, read a paper entitled "Fifteen Cases of Extragenital Chancre Observed in 1900, 1901 and 1902."

On motion the meeting adjourned to 9 A. M. Wednesday.

SECOND DAY, May 18, 1904.

The meeting was called to order by the President at 9:30 A. M.

Address by the President, Dr. W. G. Moore, "The Possibilities of Medical Organization."

On motion a vote of thanks was extended to Dr. Moore.

SYMPOSIUM ON APPENDICITIS.

Dr. P. Y. Tupper, of St. Louis, "Catarrhal Appendicitis."

In the absence of Dr. Griffith, the discussion was opened by Dr. George Halley, of Kansas City, followed by Dr. O. B. Campbell, St. Joseph, and J. M. Allen, Liberty.

On motion of Dr. C. H. Wallace it was decided to have all the papers read, to be followed by the discussion of the various papers.

Seconded and carried.

Dr. Jacob Geiger, St. Joseph, "Suppurative Appendicitis."

Dr. Harvey Mudd, St. Louis, "Perforative Appendicitis."

Dr. W. M. McCandless, St. Louis, "Gangrenous Appendicitis."

Dr. C. Lester Hall, Kansas City, "Chronic Appendicitis."

Dr. Jabez N. Jackson, Kansas City, "Technique of Operation."

Discussion by Drs. O. B. Campbell, St. Joseph; Herman Tuholske, St. Louis, and C. M. Nicholson, St. Louis.

In the absence of Dr. W. F. Morrow, Kansas City, Dr. A. W. McAlester, Columbia, read his discussion of Dr. Morrow's paper, "State Medicine."

Discussion by Dr. J. M. Allen, Liberty; Dr. George Halley, Kansas City, and Dr. Herman E. Pearse, Kansas City.

On motion the meeting adjourned to 9 o'clock on Thursday.

THIRD DAY, May 19, 1904.

The meeting was called to order at 9:40 A. M., President Moore in the chair.

Dr. F. J. Lutz presented a memorial in honor of the late Dr. Williams, of Versailles.

Moved and seconded that a suitable set of resolutions be drafted.

Carried.

Moved and seconded that an informal ballot be cast for president.

Carried.

On motion the secretary cast the ballot of the association for Dr. Jabez N. Jackson.

Dr. Jackson expressed his thanks and appreciation of the honor that had been conferred upon him.

The scientific program for the day was then taken up and

Dr. John K. Broderick, St. Louis, read a paper entitled: "Some New Ideas and Conclusions Concerning the Extract of the Adrenal Body and its Therapeutic Value."

Dr. James Moores Ball, St. Louis, read a paper entitled: "The History of Medicine," which was illustrated with stereopticon views.

On motion a vote of thanks was extended to Dr. Ball for his very refreshing and interesting contribution to the program.

On motion of Dr. A. L. Fulton, Kansas City, the association endorsed the action of the Good Roads Association towards the end that they provide as far as possible the best roads to be had.

The president introduced Dr. Wm. M. McPheeters, the first to introduce

a resolution for state organization, who responded as follows:

"I thank you for your kind consideration and will only occupy your attention long enough to state how it was that this Missouri State Medical Association came into existence. In 1850 I attended the National Medical Association meeting in Cincinnati. Kentucky, Indiana, Illinois and the other neighboring states were well represented, but Missouri had only two representatives, one was Dr. J. B. Johnson and the other myself. There was then no state society and only one or two local societies. The St. Louis Medical Society was in active operation and on my return I introduced a resolution into the society to appoint a committee to send an invitation to every respectable member of the profession in the state to attend a meeting in this city in October for the purpose of forming a state association. The meeting was well attended and the association was formed. Dr. Thomas, of Boonville, was elected the first president and I had the honor to be the second president. The association continued in active operation until the breaking out of the civil war, when everything civil was suspended and everything uncivil was in vogue. It was reorganized after the war and has developed into the noble, intelligent assemblage which it is today, of which every medical man in the state has reason to be proud."

Dr. Thomas H. Lockwood, Butler, read a paper entitled, "Sex Formation and Determination."

Dr. Jacob Block, Kansas City, read a paper entitled, "Some Remarks on Renal Tuberculosis."

Dr. Herman E. Pearse, Kansas City, read a paper entitled, "A Contribution to the Study of Gall-Stone Disease."

Dr. Wm. H. Stauffer, St. Louis, read a paper entitled, "The Importance of Diagnosis of Diseases of the Rectum."

Dr. C. H. Wallace, St. Joseph, read a paper entitled, "The Management of Irreparable Crushed Extremities."

On motion, Dr. T. E. Potter, of St. Joseph, being obliged to leave the city, read his paper by title "Inflammation and Suppuration of the Frontal Sinus."

On motion, the meeting adjourned to meet at 9 A. M. Friday.

FOURTH DAY, May 20, 1904.

The meeting was called to order at 9:40 A. M., President Moore in the chair.

Dr. Spencer Graves, St. Louis, read a paper entitled, "Removal of Entire Rib (except head) *versus* Resection for Empyema."

The President introduced Dr. William Johnson, of St. Louis, who graduated in 1838, and Dr. Dixon, of Howell county, eighty years of age, who had practiced medicine for fifty-five years, and who is the President of the Howell County Medical Society. Dr. Robert Haley moved that they congratulate the two "boys" on their appearance at the meeting and invite them to come again.

Seconded and carried.

Dr. R. B. Fewel, Montrose, read a paper entitled, "La Grippe and Its Treatment."

Dr. John D. Seba, Bland, read a paper entitled, "Pneumonia."

Dr. Robert Barclay, St. Louis, read a paper entitled, "How to Cure, by a Novel Method, Hopeless Cases of Deafness and Discharge from the Ear"

Dr. J. C. Buckwalter, St. Louis, read a paper entitled, "A Plea for Early Exposure of the Mastoid Antrum and Cell in Persistent Acute Otitis Media Purulenta with Pain."

On motion of Dr. G. C. Crandall, Dr. S. E. Solley, of Colorado Springs, was invited to address the association. The subject on which he spoke was, "Climatology."

Dr. John Green, Jr., read a paper entitled, "The Treatment of Ocular Diseases by the X-Ray."

Dr. A. H. Meisenbach, St. Louis, read a paper entitled, "Splenectomy for Enlarged Spleen with Twisted Pedicle; Recovery; Report of a Case, with Specimen."

Dr. Given Campbell, St. Louis, read a paper entitled, "Treatment of Epilepsy."

Dr. Robert D. Haire, Clinton, read a paper entitled, "Scarlet Fever."

Dr. H. C. Shuttee, West Plains, read a paper entitled, "The Early Diagnosis of Pulmonary Tuberculosis."

Dr. J. T. Anderson, Warrensburg, read a paper entitled, "Pulmonary Tuberculosis, with Especial Reference to Its Early Diagnosis and Home Treatment; with Report of a Case."

Dr. Ernest H. Spooner, St. Louis, read a paper entitled, "Psycho-Therapeutics."

On motion, the meeting adjourned *sine die*.

MINUTES OF THE HOUSE OF DELEGATES.

FIRST DAY, May 17, 1904.

The House of Delegates convened at 12 o'clock, and was called to order by the President, Dr. W. G. Moore. The delegates present were:

Drs. E. S. Cave, Chas. F. Greene, Tinsley Brown, C. H. Christian, M. P. Overholser, I. D. Brummall, F. B. Hiller, H. Rowell, Chas. P. Hough, R. D. Haire, V. Q. Bonham, H. C. Shuttee, E. L. Chambliss, Jabez N. Jackson, E. H. Thrailkill, F. L. Cook, L. I. Matthews, John T. Anderson, T. C. Bulware, F. W. Burke, J. D. Seba, Thomas Chowning, W. S. Allee, J. B. Norman, F. R. Anthony, W. J. Ferguson, R. L. Johnson, S. Redman, James W. Smith, W. H. Wyer, W. G. Moore, R. M. Funkhouser, W. B. Dorsett, F. J. Lutz, A. R. Keiffer, W. F. Mitchell, E. E. Parrish, T. W. Cotton, I. M. Horn, N. E. Sutton, Sherman Mills, W. N. Keener, D. C. Gore and J. A. McComb.

The Secretary, Dr. C. M. Nicholson, read his report, and, on motion, it was accepted.

The report of the Publication Committee was made, and, on motion, was accepted.

The Report of the Committee on Scientific Work was made, and, on motion of Dr. Gore, a vote of thanks was extended to that committee for their services.

The Secretary presented the subject of publication of the transactions of the association in journal form. He stated that he had received letters from the secretaries of the various medical societies whose transactions are published in journal form, and all

agree that the expense of the publication of the transactions in journal form is not greater than the cost of publication of the volume of transactions. He stated that, estimating two thousand copies of a 48-page pamphlet journal be printed (which would admit of fifteen hundred being sent to the members and five hundred extra copies for prospective members), the net cost to the association for mechanical work would be \$1,500 a year for three years. After that time it is reasonable to suppose the journal will be self-supporting, so that it is probable the transactions can, after that date, be published without expense to the society.

The following resolution was presented to the House of Delegates:

WHEREAS, The General Assembly of the State of Missouri has appropriated one million dollars that the state might be properly represented in all its varied interests at the Exposition commemorating the Louisiana Purchase; and

WHEREAS, The medical profession of this state will have an exhibition of objects illustrating the causes and effects of diseases in man and the changes of development; and

WHEREAS, Such an exhibition will be a most important contribution to the exhibit demonstrating the educational opportunities of the state, and will be of incalculable benefit in diffusing knowledge among the people concerning matters involving the health of our citizens, and will therefore be conducive to their prosperity and happiness; and

WHEREAS, The committee of physicians having in charge said exhibits have petitioned the commissioners, to whom by statute is assigned the duty of applying the funds appropriated by the General Assembly, to set aside the sum of one thousand dollars to defray the expense of the above mentioned exhibit; and

WHEREAS, The Commission has still under consideration the request of the committee; therefore be it

Resolved, That the Missouri State Medical Association, in annual convention assembled, joins the committee and hereby presents to the commissioners that the small sum asked for by the physicians is in no proportion to the benefits which will accrue to this state by the exhibit and should be made in the interests of education and of the public health.

Resolved, That a copy of these resolutions, properly attested, be forwarded to the Commission and to the Governor, and that the Committee on Public Policy be requested to present them in person to the Commission and Governor.

(Signed) WM. G. MOORE, President.
C. M. NICHOLSON, Secretary.

On motion, a committee (consisting of Drs. F. J. Lutz, I. D. Brummall and Robert Funkhouser) was appointed to present the resolution to the Governor.

There being no further business, the House of Delegates adjourned to meet at 1 o'clock on Wednesday.

SECOND DAY, May 18, 1804.

The House of Delegates was called to order by the President at 1:15 P. M.

The minutes of the previous meeting were read and approved.

The Nominating Committee reported as follows, stating that the first four councillors were to be elected for two years, the second for three years, the third for four years, the fourth for five years:

District.	Councillors.
1st..	F. B. Hiller, Kahoka.
2d..	J. D. Brummall, Salisbury.
3d..	E. H. Miller, Fayetteville.
4th..	C. H. Wallace, St. Joseph.
5th..	L. W. Dallas, Hunnewell.
6th..	Woodson Moss, Columbia.
7th..	W. B. Dorsett, St. Louis.
8th..	F. J. Lutz, St. Louis.
9th..	B. M. Hypes, St. Louis.
10th..	J. J. Norwine, Poplar Bluff.
11th..	W. S. Allee, Olean.
12th..	R. D. Haire, Clinton.
13th..	M. P. Overholser, Harrisonville.
14th..	A. R. Snyder, Joplin.
15th..	
16th..	R. L. Johnson, Rolla.

The Nominating Committee reported as follows:

S. M. Brown, Monroe City, First Vice-President.

H. W. Latham, Latham, Second Vice-President.

T. E. Potter, St. Joseph, Third Vice-President.

W. S. Thompson, Armstrong, Fourth Vice-President.

J. C. Rogers, Kansas City, Fifth Vice-President.

On motion the report was accepted.

The Secretary read a resolution from the St. Louis Medical Society as follows:

Resolved, That this Society request the Missouri State Medical Association at its annual meeting next May, to take action on the question of bringing to

the notice of the medical profession of this state the importance of legislation by the next General Assembly for the repression of tuberculosis by providing for a special hospital or sanatorium for consumptive persons, under state control and support, and that physicians be urged to enlighten and instruct their legislative candidates, and all other aspirants for state offices, regarding the pressing necessity for such action for the more effectual protection of the public health against tuberculosis in its various forms."

On motion the resolution was referred to the Committee on Legislation.

The Secretary read a letter from Drs. Frank Allport and Paul Guilford, of 92 State street, Chicago, embodying a resolution presenting a plan for the systematic examination of the vision and hearing of school children.

On motion the resolution was adopted and referred to the Committee on Public Policy and Legislation.

Adjourned to meet on Thursday at 1 o'clock.

THIRD DAY, May 19, 1904.

The meeting was called to order at 1 o'clock, President Moore in the chair.

The minutes of the previous meeting were read and approved.

The Secretary reported that the Judicial Council had decided to publish the transactions of the association in the form of a monthly journal to be known as the *Journal of the Missouri*

State Medical Association, and that a committee had been appointed to be known as the Publication Committee, to conduct the publication of the journal, and that the journal would be sent monthly, free of cost, to the members, the regular price of the journal to be two dollars a year.

It was moved that none other than county societies, or hyphenated county societies be allowed to affiliate with the state association after this year.

Seconded and carried.

The Committee on Public Policy reported that they had been unable to locate the Governor and asked instruction regarding the presentation of the resolution asking for an appropriation to defray the expenses of the World's Fair exhibit.

It was moved that these resolutions be sent to Dr. Thorpe, of Jefferson City, with the request that he sign and present them to the Governor.

Seconded and carried.

On motion Dr. A. R. Kieffer was elected a delegate to the American Medical Association, to fill the vacancy occasioned by the expiration of the term of Dr. F. J. Lutz.

On motion Dr. M. P. Overholser, of Harrisonville, was elected alternate for Dr. Kieffer.

On motion Dr. C. Lester Hall, of Kansas City, was elected alternate for Dr. Jabez N. Jackson.

On motion Dr. Thomas Chowning, of Hannibal, was elected alternate for Dr. Dorsett.

Excelsior Springs was chosen as the next place of meeting.

On motion the meeting adjourned.

MINUTES OF THE JUDICIAL COUNCIL.

PRELIMINARY MEETING.

ST. LOUIS, May 16, 1904.

The meeting was called to order by the chairman, Dr. Jabez N. Jackson.

The Secretary was asked to make an informal report, which was done.

On motion the Secretary's report was accepted.

The Treasurer's report was made and referred to an Auditing Committee, consisting of Drs. E. S. Cave, J. J. Norwine and Robert Haley.

On motion Thursday, 19th, was chosen as the date for the election of a President.

There being no further business the meeting adjourned to Tuesday morning.

FIRST DAY, May 17, 1904.

The meeting of the Judicial Council was called to order at 12:45 P. M., Dr. W. G. Moore in the chair.

A report from the Councillors was called for.

First District.—Dr. W. B. Sisson being absent, Dr. Hiller reported that three counties—Clark, Scotland and Schuyler—had been organizing during the last year.

Second District.—Dr. Robert Haley, Councillor, stated that all counties in his district except Mercer had been organized.

Fourth District.—Dr. C. H. Wallace, Councillor, being absent, no report was made.

Fifth District.—Dr. L. W. Dallas, Councillor, reported that Macon, Shelby, Marion, Monroe and Randolph counties were organized and that but one county in his district—Ralls—was not in affiliation with the state organization.

Sixth District.—Dr. E. S. Cave, Councillor, stated that Montgomery, Warren and Pike counties were yet to be organized in his district.

Seventh District.—Dr. W. B. Dorsett being absent, there was no report from this district.

Eighth District.—Dr. F. J. Lutz, Councillor, reported that he had been to Gasconade and made an attempt to organize that county, but his efforts up to this time had not been successful.

Ninth District.—Dr. B. M. Hypes, Councillor, stated that he had done nothing during the past year, but that if he were the Councillor next year he would certainly organize St. Genevieve, Perry and Cape Girardeau counties.

A Committee on Nominations was appointed by President Moore, as follows:

Drs. E. H. Thrailkill, Kansas City; F. W. Burke, Laclede; S. Redman, Platte City; Thomas Chowning, Hannibal; V. Q. Bonham, New Franklin; F. J. Lutz, St. Louis; H. L. Reid, Charleston; William Carson, Shelbyville; D. C. Gore, Marshall, and J. B. Norman, California.

On motion of Dr. Lutz, Council adjourned to meet at 2 o'clock on Wednesday.

SECOND DAY, May 18, 1904.

The meeting of the Council was called to order at 2 o'clock by Dr. J. N. Jackson.

A report was called for from those Councillors who had been absent on Tuesday.

Third District.—Dr. E. H. Miller,

Councillor, being absent Dr. E. H. Allen reported that Dr. Miller had visited nearly every county in his district and had pushed the organization most thoroughly. He had made every effort to effect the organization as thoroughly as possible and promised to continue the work if he should be re-elected.

Seventh District.—Dr. W. B. Dorsett, Councillor, reported that St. Louis county had come into the organization about a year ago. They have about twenty-five members, hold regular meetings and are doing excellent work. He had accomplished nothing in Lincoln county. They have no society. St. Charles county has a local organization which has not as yet affiliated with the state association, but they will undoubtedly do so later.

Tenth District.—Dr. J. J. Norwine reported an organization in ten counties of his district. Those remaining unorganized were: Jefferson, Washington, Iron, St. Francois, Wayne, Madison and Bollinger. Butler and Mississippi counties were organized about a year ago and the membership is growing rapidly. Carter and Reynolds have been organized, the membership numbers sixteen and they constitute the Current River Medical Society. The Secretary could not see the members in time to get the entire list, but they would be all enrolled as soon as the Secretary could see them. The members were active and interested in the society. Shannon county was organized and represented at the present meeting of the association. Iron will be organized at an early date. He thought Wayne county would not be hard to organize. Owing

to the high water it had not been possible to accomplish anything this year. New Madrid county has been organized. Madison and Bollinger counties cannot be organized. St. Francois and Stoddard counties can be organized. During the year he has organized five counties with a total membership of forty. He promised to continue the work and organize as many counties during the coming year as possible.

Eleventh District.—Dr. W. S. Allee, Councillor, reported that he had seven counties in his district and had organized six. He reported a membership of over sixty. Osage was the only county unorganized. The physicians in that county believe they belong to the McDowell District and think they can do more efficient work in connection with that society.

Twelfth District.—Dr. Ferguson being absent there was no report.

Thirteenth District.—Dr. J. N. Jackson, Councillor, reported Jackson and Cass counties organized. Some work had been done by Dr. Overholser in Cass county. In Jackson county they gave the members one week in which to settle their arrears, after which time, if arrears remained unsettled, the member would be suspended.

Fourteenth District.—Dr. A. R. Snyder, Councillor, being absent, Dr. Jackson reported for him. The name of the Joplin Academy of Medicine had been changed to the Jasper County Medical Society and a number of men have been added to the society. They are starting out with an efficient president and the indications are they will have a very excellent organization. Dr. Snyder has been doing good work.

Sixteenth District.—Dr. R. L. Johnson, Councillor, reported that Greene county has a district society, that Greene county, in which Springfield is located, is not in the Sixteenth District, and effectually cuts off the southern section of the district, so that organization is up-hill work. Phelps and Laclede counties are organized. The doctors of Crawford county have recently organized under the name of the Crawford County Medical Society. Pulaski county will come in without any special trouble.

Dr. J. M. Allen brought up the question of commercialism as it concerned his district especially. He said that it was demoralizing the community and was the most dangerous foe the profession had met. At a recent meeting of the physicians of Kansas City, Kansas, and Kansas City, Missouri, called for the purpose of taking action upon the matter, it was recommended that the question be agitated with the object of exposing the actions of such physicians to the medical profession. The penalty decided upon was exclusion from the local and state medical societies, and the following resolution was adopted:

“WHEREAS, It is generally recognized that there is a prevalent and growing evil consisting of the payment of percentages by specialists in the profession to the practitioner bringing them patients; and,

WHEREAS, We deplore the growing commercialism which permits the one to demand and the other to give commissions, and feeling that this tendency will rob the practice of its dignity as a profession, thus reducing it to the level of a trade; therefore, be it

Resolved, That we recommend the

agitation of this question in the various local and state societies with a view of exposing and condemning the evil, as well as providing the means or penalties to insure its discontinuance.

H. C. CROWELL, Pres.,
P. D. HUGHES,
GEORGE M. GRAY,
J. BLOCK, Committee.”

On motion the council adjourned to meet after the election of officers, on Thursday morning.

THIRD DAY, May 19, 1904.

The meeting of the Council was called to order at 10:30 A. M. Dr. C. H. Wallace was elected temporary chairman. On motion, Dr. F. J. Lutz, of St. Louis, was elected President of the Council for the ensuing year.

The matter of the publication of the transactions was then taken up.

Moved by Dr. Woodson Moss, seconded by Dr. Overholser, that the Judicial Council publish in form of an independent monthly journal the proceedings of the Missouri State Medical Association.

Carried.

Moved by Dr. M. P. Overholser, seconded by Dr. Dallas, that a publication committee be appointed by Dr. Wallace, temporary chairman, and Dr. C. M. Nicholson, chairman of the Publication Committee, and given full power to act.

Carried.

The committee appointed—Dr. C. Lester Hall, Kansas City, Mo.; F. J. Lutz, St. Louis; Woodson Moss, Columbia; M. P. Overholser, Harrisonville; Robert T. Sloan, Kansas City, and L. A. Todd, St. Joseph.

Moved by Dr. B. M. Hypes, that

the following resolution be adopted:

Resolved, That after this session of 1904 the membership of the Missouri State Medical Association be limited to county societies and hyphenated county societies.

Seconded and carried.

Election of officers was then declared in order, and resulted as follows:

Secretary, C. M. Nicholson, St. Louis.

Assistant Secretary, E. J. Goodwin, St. Louis.

Treasurer, J. Franklin Welch, Salisbury.

D. J. J. Norwine reported for the auditing committee that the books of the Treasurer were in satisfactory condition.

On motion the report was accepted.

Moved and seconded, that Dr. Welch be instructed to secure bond for treasurer, also bond covering deposit while in bank.

Moved that two thousand copies of the President's Address be printed and distributed to the members of the profession not members of the association.

Seconded and carried.

On motion the meeting adjourned to Friday morning at 10:30.

FOURTH DAY, May 20, 1904.

The meeting was called to order at 10:30 A. M. by Chairman F. J. Lutz.

On motion, Drs. Lutz and Nicholson were instructed to make necessary inquiries, and, if thought advisable, incorporate the Missouri State Medical Association.

On motion of Dr. Overholser the bill of Dr. Dallas, for \$15.50 was allowed and ordered paid.

On motion the bill of Miss Edith Strong of \$10 per day, for four days, in part payment of reporting the proceedings, was allowed and ordered paid.

Reports were received from Officers and Committees as follows:

REPORT OF SECRETARY MISSOURI STATE MEDICAL ASSOCIATION.

To the President and Members of the Missouri State Medical Association:

GENTLEMEN—I have the honor of making the following report for the year just ended:

In accordance with the instructions of the House of Delegates of the society, I ordered, through the American Medical Association, a cabinet and 7,000 cards, that an alphabetical list of the physicians of the state might be made. Roster blanks furnished through the American Medical Association were sent to the secretary of each society, and as each returned roster was received by me the list was copied by the stenographer and returned to the secretary of the society for correction. After being corrected by the secretary of the county society each physician, whether a member or not, was given a card in the cabinet, where the cards were arranged alphabetically by counties. The secretaries of the various societies and county clerks have usually responded to requests for lists of physicians, so that altogether the index of the state association includes more than 5,900 names.

Blanks for memoranda for permanent record were sent to a large number of members, and nearly 1,000 have responded, so that we now have

not only the names and addresses, but the autobiography of most of the members of the State Medical Association.

Packages of model constitutions, roster blanks, blanks for permanent record, blank application for membership and application for charter have been sent to the secretaries of all county societies as well as to the councillors of each district.

Charters have been issued to the following societies now in affiliation with the state association: Audrain, Boone, Buchanan, Butler, Caldwell, Callaway, Camden, Cass, Chariton, Clay, Clark, Cole, Daviess, Henry, Holt, Howard, Howell, Jasper, Johnson, John T. Hodgen, Laclede, Linn, Macon, Marion, Miller, Mississippi, Moniteau, Morgan, Nodaway, Pettis, Platte, Putnam, Randolph, Reynolds, Rolla district, Schuyler, St. Clair, St. Louis and Sullivan.

Press copies of all letters written from the secretary's office (1,569) have been made, and are here for inspection by the members of the association.

The following is a recapitulation of the work of the office:

Number of letters written	1,569
Number of circular letters mailed	1,400
Number of packages mailed	105
Number of special delivery letters	6
Number of charters sent to societies	39
Number of packages expressed	5
Number of telegrams sent	4

The expenses of the office were as follows:

Two-cent stamps for mailing (1,569) letters	\$31.38
---	---------

One-cent stamps for mailing circular letters	14.00
Two-cent stamps used by committee on scientific work	7.00
Stamps for mailing 105 packages	11.32
Stamps for special delivery	.60
Stamps for mailing charters	.78
Telegrams	1.60
Express	2.20

Total\$68.88

Respectfully submitted,
C. M. NICHOLSON,
Secretary.

REPORT OF COMMITTEE ON SCIENTIFIC WORK.

To the President and Members of the State Medical Association:

GENTLEMEN—Two months ago your committee on program sent out fourteen hundred (1,400) invitations to members of the association and others to take part in the scientific work at the annual meeting (1904), to which there were seventy-six (76) responses.

Five thousand (5,000) copies of a forty-eight (48) page program, containing a full list of the members of the association, with their addresses, was ordered printed. The cost of printing and binding was \$164.00, addressing and mailing \$2.00, fifteen hundred (1,500) two-cent stamps \$30.00; total \$196.00. Amount received from advertisers \$196.30.

Not only is the program presented to you without cost, but there has been turned over to the treasurer by your committee a balance of thirty (30) cents.

The committee desires to express its thanks to Dr. E. J. Goodwin, the As-

sistant Secretary, for valuable services in the preparation of the program.

C. M. NICHOLSON,
Chairman.

REPORT OF PUBLICATION COMMITTEE.

To the President and Members of the State Medical Association:

GENTLEMEN — Your committee on publication hereby makes the following report:

Of the fifty-four papers read at our last annual meeting, fifty-one were placed in the hands of the publishing committee. Immediately upon receipt from the official stenographer of the discussions which followed the reading of the papers, your committee sent to each participant a typewritten copy of his reported remarks, with the request that he correct it for publication.

For the past year the total expenses for printing, binding and mailing 1,300 copies of the transactions were \$983.10, making each volume cost 90 cents. The lowest bidder's charge for typesetting and printing was as follows: Small pica, \$1.30 per page; brevier, \$1.80 per page; binding in cloth, 20 cents per number.

Thirteen hundred (1,300) copies were ordered printed, each of 476 pages. Including stamps for mailing, the expense incurred by your committee was \$1,167.50.

Eleven hundred and ninety (1,190) of the volumes were delivered to members, eighty-four (84) to the various state medical societies and public libraries of the country.

C. M. NICHOLSON,
Chairman.

TREASURER'S ACCOUNT WITH THE MISSOURI STATE MEDICAL ASSOCIATION.

CASH RECEIVED.

1903.

Amount forward.....	\$ 344 24
1 March 18, Howard county.....	32 00
2 " 27, Chariton county.....	42 00
3 " 27, St. Louis county.....	40 00
4 " 19, Putman county.....	26 00
5 " 23, Linn county.....	54 00
6 " 27, Henry county.....	54 00
7 April 2, Cass county.....	54 00
8 " 10, Sullivan county.....	12 00
9 " 10, Platte county.....	28 00
10 " 11, Monroe county.....	30 00
11 " 12, Saline county.....	10 00
12 " 12, St. Clair county.....	8 00
13 " 12, John McDowell, M. S.....	78 00
14 " 14, Daviess county.....	22 00
15 " 14, J. T. Hodgen, M. S.....	48 00
16 " 14, Boone county.....	54 00
17 " 15, Carroll county.....	32 00
18 " 16, Laeelle county.....	16 00
19 " 16, Johnson county.....	50 00
20 " 17, Macon county.....	36 00
21 " 17, Holt county.....	34 00
22 " 18, Audrain county.....	28 00
23 " 19, Clay county.....	42 00
24 " 19, McDowell district.....	18 00
25 " 19, Calloway county.....	32 00
26 " 19, Grundy county.....	26 00
27 " 19, Phelps county.....	22 00
28 " 19, Jackson county.....	324 00
29 " 20, No. Mo. Med. Ass'n.....	16 00
30 " 20, Joplin Ac. Med. Ass'n.....	44 00
31 " 20, Mississippi county.....	16 00
32 " 20, Butler county.....	18 00
33 " 20, Caldwell county.....	22 00
34 " 20, Buchanan county.....	84 00
35 " 21, Nodaway county.....	54 00
36 " 21, Pettis county.....	62 00
37 " 21, Northeast Missouri.....	18 00
38 " 21, St. Louis, Mo.....	650 00
39 " 21, Livingston county.....	30 00
40 " 21, Atchison county.....	8 00
41 " 21, Ray county.....	26 00
42 " 22, Grand River.....	2 00
43 " 23, Cash from Dr. Bogard.....	5 00
44 May 25, Cash from Dr. Bogard.....	20 00
	<hr/>
	\$2,671 24

1903. DISBURSEMENTS.			
April 21, Dr. C. M. Nicholson.....	\$ 38 44	Nov. 13, Dr. C. M. Nicholson, Frt....	1 59
" 22, Dr. Frank J. Lutz.....	3 80	" 13, Globe War. Co.....	38 90
" 23, T. N. Bogartd, CCA.....	73 70	" 13, Reliance Co-op. Co.....	19 50
" 24, Dr. H. W. Loeb.....	44 00	" 13, Buxton & Skinner.....	5 25
" 24, Commercial Pr. Co.....	59 90	" 13, Spalding St. Co.....	1 50
May 14, Mod. Printing Co.....	1 50	Dec. 3, Spalding St. Co.....	1 00
" 24, Dismuke & Son, Prs.....	2 50	" 3, Modern Printing Co.....	2 75
" 30, J. G. Gallemore, Pr.....	3 50	" 31, Dr. C. M. Nicholson.....	125 00
June 6, Modern Printing Co.....	10 75	" 31, Cash on hand.....	770 75
" 6, Dr. E. J. Goodwin.....	110 00		<hr/>
July 11, Nat'l Surety Bond Co.....	15 00		\$2,671 24
" 11, Stamps and Stenog.....	35 00		
Aug. 7, Dr. C. M. Nicholson.....	164 35	Salisbury, Mo.	J. F. WELCH,
" 7, Modern Printing Co.....	10 00		Treasurer.
" 7, Nixon-Jones Printing Co...	983 10	We, the committee, have examined the	
" 29, Dr. C. M. Nicholson, AMA.....	31 00	above report of the treasurer, and find it cor-	
" 31, Dr. C. M. Nicholson.....	100 00	rect.	J. J. NORWINE,
Sept. 12, Dr. C. M. Nicholson.....	18 46		ROBT. HALEY,
			E. S. CAVE,
			Committee.

JOURNAL

MISSOURI STATE MEDICAL ASSOCIATION

The official organ of the State Association and Affiliated County Societies. Published monthly under the supervision of the Publishing Committee.

PUBLICATION OFFICE, 531 N. VANDEVENTER AVE.

VOL. I.

JULY, 1904.

No. 1.

PUBLICATION COMMITTEE.

C. M. NICHOLSON, Editor and Chairman.

ASSOCIATE EDITORS.

C. LESTER HALL,
F. J. LUTZ,

WOODSON MOSS,
M. P. OVERHOLSER,

ROBERT T. SLOAN,
L. A. TODD.

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AUDRAIN COUNTY—C. A. Rothwell, M. D., Mexico.
BOONE COUNTY—J. M. Fisher, M. D., Columbia.
BUCHANAN COUNTY—Chas. Wood Fassett, M. D., St. Joseph.
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CALDWELL COUNTY—Tinsley Brown, M. D., Hamilton.
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CARROLL COUNTY—R. F. Cook, M. D., Carrollton.
CASS COUNTY—J. S. Triplett, M. D., Harrisonville.
CHARITON COUNTY—C. A. Jennings, M. D., Salisbury.
CLARK COUNTY—A. C. Bridges, M. D., Clinton.
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COLE COUNTY—G. Ettmueller, M. D., Jefferson City.
CURRENT RIVER—Frank Hyde, M. D., Eminence.
DAVISS COUNTY—M. A. Smith, M. D., Gallatin.
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GASCONADE COUNTY—
HENRY COUNTY—F. M. Douglas, M. D., Clinton.
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JOHNSON COUNTY—E. H. Gilbert, M. D., Warrensburg.
JOHN T. HODGEN DISTRICT—H. A. Rhoades, M. D., Foster.
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MORGAN COUNTY—John T. Beale, M. D., Versailles.
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ST. CLAIR COUNTY—E. D. Miles, M. D., Osceola.
ST. LOUIS—T. A. Hopkins, M. D., St. Louis.
ST. LOUIS COUNTY—H. G. Wyer, M. D., Kirkwood.
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SCOTLAND COUNTY—O. F. Fife, M. D., Memphis.
SHELBY COUNTY—L. W. Dallas, M. D., Hummelwell.
SULLIVAN COUNTY—G. S. Milnes, M. D., Milan.

EDITORIAL.

With this issue the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION makes its bow to the profession of Missouri. During past years the transactions of the State Association have been published in a single volume. This has not been altogether satisfactory, hence the advent of the JOURNAL.

The JOURNAL will publish the transactions of the State Association, and,

in addition, the transactions of affiliated county societies. A further object of the JOURNAL will be to cement into closer relationship the medical fraternity of Missouri.

Up to 1903, at which time the Association was reorganized, the membership was between two and three hundred. Since that time more than a thousand new members have been added, and, with the assistance of the

JOURNAL, the membership should be increased to at least three thousand within the next three years.

The Committee on Publication look forward to the co-operation of the physicians of the state to enable the JOURNAL to reach the high standard of excellence it will be the aim of the committee to maintain. C. M. N.

THE ST. LOUIS MEETING—LARGEST ATTENDANCE ON RECORD.

The forty-seventh annual meeting of the Missouri State Medical Association at St. Louis was one of the most satisfactory in the history of the association. The report shows that altogether 507 members were registered, which was probably 40 per cent. more than registered at any preceding meeting. The weather was cool and pleasant and having only morning sessions the members were enabled to spend the afternoons at the World's Fair. Hotel accommodations were abundant and rates reasonable. The large hall at the Y. M. C. A. building in which the regular sessions were held, the small hall which was turned over to the exhibitors and the parlors on the second floor in which the House of Delegates and Judicial Council held their meetings, were all especially adapted for the purpose. The Judicial Council held a preliminary meeting on Monday evening and received the reports of the Secretary and Treasurer. On Tuesday morning an address of welcome was delivered by Mr. Chas. P. Hornsby, president of the City Council. The scientific program was especially excellent. Wednesday afternoon the members enjoyed an auto-

mobile ride through Tower Grove and Forest Parks and the residence portion of the city. The reception held at the Missouri Building at the World's Fair on Friday evening was a most successful event. C. M. N.

MEMBERS IN GOOD STANDING.

On pages 37 to 56 of this issue will be found the names of all members in good standing, of affiliated county societies, therefore a complete roster of members of the State Medical Association. No physician in Missouri who is not a member of an affiliated county society (by virtue of which he becomes a member of the Missouri State Medical Association) is eligible to membership in the American Medical Association.

THE PATENT MEDICINE CURSE.

Mr. Edward Bok, in the May issue of the *Ladies' Home Journal*, has made an appeal to the W. C. T. U. to inaugurate a fight against patent medicines because of the alcohol they contain. This article, appearing in a journal having an immense circulation among women, will probably have a good effect, in overcoming the "patent medicine habit." In this article an analysis of "Doctor Pierce's Favorite Prescription," made by the well-known German chemist, Hager, and published in Hahn's *Geheimmittel*, is given and as a result the R. V. Pierce Company has brought suit against the *Ladies' Home Journal* for \$200,000.00. Whether the filing of this suit is purely for the purpose of advertising, we do not know, but think it probable the case will never reach the courts. The following percentages of alcohol in the patent

medicines named are given by the Massachusetts State Board Analyst in the published document No. 34:

THE ALCOHOL IN "PATENT MEDICINES."

	Per cent. of alcohol (by volume.)
Lydia Pinkham's Vegetable Compound	20.6
Paine's Celery Compound...	21.
Dr. Williams' Vegetable Jaundice Bitters	18.5
Whiskol, "a non-intoxicating stimulant"	28.2
Colden's Liquid Beef Tonic, "recommended for treatment of alcohol habit"....	26.5
Ayer's Sarsaparilla.....	26.2
Thayer's Compound Extract of Sarsaparilla.....	21.5
Hood's Sarsaparilla.....	18.8
Allen's Sarsaparilla.....	13.5
Dana's Sarsaparilla	13.5
Brown's Sarsaparilla.....	13.5
Peruna	28.5
Vinol, Wine of Cod-Liver Oil.	18.8
Dr. Peter's Kuriko.....	14.
Cart's Physical Extract.....	22.
Hooker's Wigwam Tonic....	20.7
Hoofland's German Tonic....	29.3
Howe's Arabian Tonic, "not a rum drink"	13.2
Jackson's Golden Seal Tonic.	19.6
Mensman's Peptonized Beef Tonic.....	16.5
Parker's Tonic, "purely vegetable"	41.6
Schenck's Seaweed Tonic, "entirely harmless"	19.5
Baxter's Mandrake Bitters....	16.5
Bokers Stomach Bitters.....	42.6
Burdock Blood Bitters.....	25.2
Greene's Nervura	17.2
Hartshorn's Bitters.....	22.2
Hoofland's German Bitters, "entirely vegetable"	25.6
Hop Bitters	12.
Hostetter's Stomach Bitters..	44.3
Kaufman's Sulphur Bitters, "contains no alcohol" (as a matter of fact it contains 20.5 per cent. of alcohol and no sulphur).....	20.5
Puritana	22.
Richardson's Concentrated Sherry Wine Bitters.....	47.5
Warner's Safe Tonic Bitters..	35.7
Warren's Bilious Bitters....	21.5
Faith Whitcomb's Nerve Bitters.....	20.3

NEWS ITEMS.

YE ANCIENT DOCTOR.

Sir Arthur Conan Doyle practiced medicine before he began to write, and in one of his scrapbooks he has a newspaper advertisement that he cherishes because it shows well the low standing of many doctors in the eighteenth century. Sir. Arthur clipped the advertisement from a newspaper of the year 1787. It reads:

"Wanted, for a family not blessed with good health, a sober, discreet and steady person to act in the capacity of doctor and apothecary. He must often act also as a steward and butler, and occasionally dress hair and wigs. He will be required to read prayers and sometimes, on wet Sundays, to preach a sermon or two. A good salary will be paid, and a pref-

erence will be given to such an one as, besides the above qualifications, can mend clothes."—*Daily Medical Journal*.

RESULT OF A PHYSICIAN'S EFFORT TO COLLECT A BILL.

A certain physician living in the northern part of Nebraska recently sent a bill for services rendered, and a few days after received his bill back, indorsed as follows:

"Dear Sir—This notice was put in my box and opened by mistake. The party has been dead for about three months, and is no relation to me whatever. It is strange how a doctor's conscience will allow him to dun the dead. You must live a better Christian life, and live and let live, and try and meet this lady in heaven, which is worth more than \$41.50 to any doctor. Respectfully, ———." —*New York State Journal of Medicine*.

BILL TO REGULATE "PATENT MEDICINES."

A bill has recently been introduced in the legislature of Massachusetts providing for the regulation of the nostrum business. This proposed measure requires that the formula of the "patent" medicine be printed on the label of each container, and provides a fine of 50 cents for each original package not so labeled. Only extracts from the proposed law have thus far reached us, but it seems to offer some excellent suggestions. Of course, the law should be so constructed as to omit physicians' prescriptions, but, with that exception, it would seem desirable to compel all manufacturers of anything intended to be used as medicine, in its broad

sense (any substances employed in the treatment of disease), to advertise just what the so-called medicine is composed of. That such a requirement will be bitterly fought by the enormous interests invested in the trade of debauching humanity is certain. But with a good, strong organization could not the weight of this influence be offset? It certainly would seem almost time to begin the effort, for it will doubtless take a good deal of time to put it through.—*California State Journal of Medicine*.

LIABILITY FOR NEGLECT OF PATIENT DURING VACATION.

The First Appellate Division of the Supreme Court of New York says, in the case of Gerken vs. Plimpton, that a physician who undertakes the treatment of a patient is bound to exercise not only the skill required, but also care and attention, in attending his patient until he notifies the patient that his professional relations are terminated. A physician and surgeon engages to bring to the treatment of his patient care, skill and knowledge; and while, when exercising these, he is not responsible for mere errors in judgment, he is chargeable with the knowledge of the probable consequences of an injury, or of neglect in its treatment, or unskillful treatment. And when a physician is employed to attend upon a sick person his employment continues while the sickness lasts, and the relation of physician and patient continues, unless it is put an end to by the assent of the parties, or is revoked by the express dismissal of the physician. Here, a physician and surgeon, whose qualifications as such were conceded,

was called in as a surgeon in connection with a physician who was first summoned, who did not consider himself competent to treat a case of the kind, to treat fractured left arm. As a surgeon, the court says: he undoubtedly undertook the case, and in doing so assumed to give it the care and attention required. He put the arm in splints, and directed the patient to carry it in a sling. Thereafter, for about six weeks, he attended the case, and all of the physicians called as witnesses united in saying that the method of treatment adopted till then was proper. Then, however, he went away for a vacation. The bones had not yet united. But when he returned, after five weeks' absence and again examined the arm, he found that the bones had slipped from their position, overlapped, and in this position formed a union. He testified that, prior to his leaving, he told the patient that he was going away on his vacation for two or three weeks, and that, if she desired him to call again, she must send for him. Her testimony was that he stated that he was going away for a vacation, and that he would be back again within

ten days or two weeks, and in the meantime directed her to keep her arm in the sling. Under all the circumstances, the court thinks that the jury was justified in finding, if it believed the patient's version of that interview, that the doctor had been negligent in the discharge of his duties which he had assumed in relation to this patient. The jury returned a verdict in her favor for \$2,000, which was reduced by stipulation to \$500 to avoid a new trial being granted by the judge, who considered the amount of the verdict excessive. And whatever may be said of the original verdict of \$2,000, the Appellate Division thinks it quite evident that \$500 was not excessive, especially when there was no evidence tending to show that the only practicable treatment at that time was to fracture the bones where the union had taken place, and then wire the bones in their proper position, and that the reasonable value for such an operation would be \$500, after which the patient would be in the position she was when the doctor left for his vacation, but with no certainty that there would be a union of the bones.—*Medico-Legal Bulletin*.

COUNTY SOCIETY NOTES.

HOWARD COUNTY MEDICAL SOCIETY.

The Howard County Medical Society held its regular meeting June 14th, President Paul C. Smith in the chair. Reports of the annual meeting of the Missouri State Medical Association at St. Louis were made, and the work highly complimented. Dr. C. M. Nicholson received a vote of

thanks for the able manner in which the affairs of the Secretary's office had been conducted. Dr. Bingham, of New Franklin, reported a case of scarlet fever. A general discussion followed. Dr. Watts, of Fayette, reported the case of a boy ten years of age, with punctured wound of the foot from a nail. He urged the necessity in all such cases of thoroughly

opening and washing out the wound, adding that as the bacillus of tetanus is anerobic, such treatment will lessen the dangers of lockjaw.

PUTNAM COUNTY.

Putnam County Medical Society held their regular meeting on June 8th, with President I. F. Noel in the chair. Officers for the ensuing year were elected as follows: President, C. H. Carrier; Vice-President, J. E. McCuthen; Secretary, James A. Townsend; Treasurer, Lee Haynes. Application of Dr. W. A. Berry, Rush Medical College, 1903, received. All papers held over for next meeting. Adjourned to meet first Wednesday in July.

JAMES A. TOWNSEND, Reporter.

HENRY COUNTY.

The Henry County Medical Society met in regular session at Clinton, June 8th, Dr. J. M. Miller presiding. Dr. F. M. Douglas, of Clinton, was elected reporter for the society. After the usual preliminary business, Dr. Gibbons reported a case of face presentation, twenty-four hours in labor when he was called; parts found rigid and undilated. Version was performed under complete anesthesia. The doctor ventures the assertion that in all such cases chloroform anesthesia should be pushed to the surgical degree. Dr. Gibbons also reported a case of spontaneous transverse fracture of the right tibia occurring in a man forty-five years of age while walking slowly along a level, smooth pavement. Seven years previous the patient had sustained a fracture of the surgical neck of the right femur while alighting from a

buggy. Skiagraphs showing the present condition of the parts added greatly to the interesting features of the case.

F. M. DOUGLAS, Reporter.

MISSISSIPPI COUNTY.

The regular meeting of the Mississippi County Medical Society was held at Charleston, Monday evening, June 4th. Society called to order by President Dr. A. W. Chapman. After reading the minutes of the preceding meeting and the appointment of Dr. W. P. Howell as reporter of the society, the evening was spent in listening to a brief report of the annual meeting of the Missouri State Medical Association by Dr. H. L. Reid, Secretary of the Mississippi County Medical Society. He stated that no one except a member in good standing in the county society was eligible to membership in the Missouri Medical Association or in the American Medical Association. The subject of "oil wells" was brought to the attention of the association by a letter from F. Sivelley, of Kansas City, asking the doctors to buy shares in the "Physicians and Surgeons' Oil Company." Notwithstanding the fact that it is championed by members of the State Board of Health and State Medical Association, the doctors of Mississippi county are not favorably impressed with oil speculation. Several have parted with their hard-earned cash, and hold in exchange worthless shares of stock. Mississippi county heartily indorses the change in publication of the transactions from a single volume to the monthly journal.

W. P. HOWELL, M. D., Reporter.

ST. LOUIS MEDICAL SOCIETY.

June 4, 1904.

The society was called to order at 8:40, President Hypes in the chair.

The minutes of the previous meeting were read and approved.

The following physicians were elected to membership, they having submitted the required credentials and having been approved by the Elections Committee:

Dr. Carl Althans, 2848 Accomac street, graduated from the Washington University.

Dr. Fred. W. Bailey, City Hospital, graduated from St. Louis University.

Dr. P. H. Griffin, 2730 Washington avenue, graduated from Missouri Medical College.

Dr. E. H. Johnson, 2507 N. Spring avenue, graduated from Barnes Medical College.

Dr. F. H. Rosebrough, Grand and Bell, graduated from St. Louis University.

The name of Dr. C. H. Shutt was proposed for membership by Drs. King and T. A. Hopkins and was referred to the Elections Committee.

A letter from the Secretary of the State Association, relative to the society editor for the *State Journal*, was read. On motion of Dr. Homan the society elected Dr. T. A. Hopkins to the position.

PROGRAM.

SYMPOSIUM ON VALVULAR DISEASE OF THE HEART.

1. "Pathologic Specimen," Dr. Louis H. Behrens.

2. "Bacteriology of Valvular Disease," Dr. R. B. H. Gradwohl.

3. "Medical Treatment," Dr. Walter Baumgarten.

4. "Dietetic and Physical Treatment," Dr. A. E. Taussig.

5. "Valvular Disease Considered from a Surgeon's Standpoint," Dr. H. L. Nietert.

Dr. L. H. Behrens presented five pathologic specimens as an introduction to the subject. The specimens were of exceptional interest and contributed largely to the interest in the remainder of the program. Each specimen merits attention beyond our space. One of mitral stenosis was especially of interest, because of a calcareous deposit in the valve and a stenosis so great that the lumen would barely admit the introduction of a darning needle.

Dr. Walter Baumgarten considered the various medicinal remedial agents, considering those which he had found of value in detail.

Dr. A. E. Taussig considered dietetic and hygienic treatment, giving especial attention to the bath treatment as conducted at Nauheim and explaining his adaptation of the treatment to St. Louis conditions.

Drs. Gradwohl and Nietert being absent, their papers were necessarily omitted.

The subject of the evening was discussed by Drs. Shattinger, Boisliniere, Hypes, Behrens, Baumgarten and Taussig.

The society adjourned at 10:15.

T. A. HOPKINS, Reporter.

CASS COUNTY.

The Cass County Medical Society meet at Harrisonville, June 2, 1904. The meeting was called to order by the President, Dr. T. W. Adair. Minutes

of preceding meeting were read and approved. Dr. J. S. Triplett of Harrisonville was elected reporter of the society. The applications of Drs. L. M. Wood, Pleasant Hill, and F. R. Morley, Harrisonville, were read by the secretary. In order that the applicants might receive the first issue of the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION, on motion of Dr. H. Jerald, of Pleasant Hill, the rules of order of the society were suspended, and after favorable report by Dr. M. P. Overholser, Harrisonville, Chairman of the Board of Censors, the applicants were voted upon separately and each unanimously elected to membership. Dr. G. W. Farrow presented a patient, male, thirty-five, in good health with negative family history, from whom two years ago a parotid growth of six years' duration, about the size of a hen's egg, was removed by operation. The growth recurred in the same location and is now somewhat larger than the tumor removed two years ago. The doctor advised a second operation. A paper, "Dislocations and Methods of Reduction," by Dr. G. W. Farrow, of East Lynne. Discussions by Drs. Jerald, Elder and Overholser. A paper, "Lymphatic Leukamia," was read by D. M. P. Overholser, of Harrisonville, who also reported a case demonstrating the pathology of this rather rare disease by a beautifully prepared blood film. The paper was discussed by Drs. Jarard and Triplett.

The case presented was as follows:

The stained-blood specimen, now under the microscope for your examination, is from a girl thirteen years

of age who recently died of the lymphatic variety of leukemia. By examining the specimen under the microscope, you will see that the small mononuclear leucocytes, which are stained blue, are nearly as numerous, in some of the fields, as the erythrocytes or red-blood corpuscles.

A count of the red cells in this case showed that there were 1,668,000 to the cubic millimeter. Unfortunately no count was made of the white cells or lymphocytes, but judging from relative proportion of the white and red cells, as seen in the stained specimen, the lymphocytes in this case must have reached the enormous number of perhaps seven or eight hundred thousand to the cubic millimeter. No normoblasts, megaloblasts or myelocytes were found in the blood specimens from this patient. The percentage of hemoglobin was 28 per cent.

The clinical symptoms were also quite well marked, but not sufficient of themselves on which to base a positive diagnosis. Aside from the plain evidences of grave anemia, however, the patient had hematuria, subcutaneous hemorrhages, hemorrhagic gingivitis, enlarged cervical and supra-clavicular glands and some enlargement of the spleen, which could be plainly felt by palpation.

She was first seen by her physician in February, who at once placed her on tonics and arsenic. In spite of the tonics and chalybeate treatment, however, the anemia continued in progress and the tendency to hemorrhages kept increasing until she suddenly died several weeks ago.

J. S. TRIPLETT, Reporter.

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McKenzie, D. H., Lesterville.
 Moffitt, J. H., Redford.
 Moore, J. H., Centerville.
 O'Dell, T. T., Ellington.

SALINE COUNTY.

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 Dr. B. M. SPOTTS, Vice-Prest.

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 Dr. M. F. CHASTAIN, Treasurer.

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 Dorsett, W. B.
 Funkhouser, R. M.

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 Lutz, F. J.
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Members.

Abeken, F. W., 3531 S. Broadway.
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 Allison, N., Linmar Bldg.
 Allyn, A. B., 3136 Morganford Rd.
 Alt, A., 3036 Locust St.
 Althans, Carl, 2848 Accomac St.
 Amerland, J. H., 2739, Chippewa St.
 Apperson, E. L., 536 N. Taylor Ave.
 Atkins, H. S., Insane Asylum.
 Atkinson, R. C., 3002 Lafayette Ave.
 Aufderheide, W. D., 2754 Arsenal Av.
 Auler, H. A., 2708 Lynch St.
 Babler, E. A., 617 Euclid Ave.
 Bailey, F. W., City Hospital.
 Baker, R. W., 1438 Pendleton Ave.
 Ball, J. M., 3509 Franklin Ave.

Ball, O. F., Linmar Bldg.
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 Barclay, Robt., 3894 Washington Av.
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 Barnes, A. S., Jr., Mo. Trust Bldg.
 Bauduy, W. K., 2808 Olive St.
 Bauduy, J. K., 2808 Olive St.
 Bauer, C. E., 2104 N. 14th St.
 Baumgarten, G., 2608 Locust St.
 Baumgarten, W., 2647 Wash'gton Av.
 Bartlett, W., 3894 Washington Ave.
 Barnes, R. H., 3348a Laclede Ave.
 Becker, W. H., 4743 Labadie Ave.
 Bedal, A. C., 3418 Lucas Ave.
 Behrens, L. H., 5 S. Broadway.
 Bishop, F. L., 516 N. Garrison Ave.

- Blair, V. P., 305 N. Grand Ave.
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Bliss, M. A., 3561 Olive St.
Bolton, B. M., 4160 McPherson Ave
Boogher, F., High and Carr Sts.
Boogher, J. L., Mo. Trust Bldg.
Booth, D. S., 534 N. Vandeventer Av.
Bock, A. F., 1107 N. Grand Ave.
Brocke, E., 3916 N. 20th St.
Bond, Y. H., 325 N. Grand Ave.
Boemler, G., 1022 St. Louis Ave.
Boisliniere, L. C., 3533 Olive St.
Boehm, J. L., 717 N. 8th St.
Broderick, J. R., Vanol Bldg.
Bradley, A. H., 1019 N. 21st St.
Brown, Jno. Young, City Hospital.
Brown, L. S., 536 N. Taylor Ave.
Bribach, B., 7608 Michigan Ave.
Brookes, H. S., 3557 Lafayette.
Broome, G. W., 612 N. Taylor Ave.
Brokaw, A. V. L., 536 N. Taylor Av
Briggs, W., 500 N. Jefferson Ave.
Bremer, L., 3723 Pine St.
Brandt, A. L., City Hospital.
Buckwalter, J. C., Carleton Bldg.
Burnett, E. C., Century Bldg.
Buck, T. E., 2610 S. Jefferson Ave.
Burns, Robt., 612 N. Taylor Ave.
Burford, C. E., 932 Hamilton Ave.
Carley, H. D., 3419 Bell Ave.
Cape, L. W., Sutton & Hazel.
Carson, N. B., 3561 Olive St.
Carson, G. W., Century Bldg.
Cadwallader, I. H., 919 N. Taylor Av.
Campbell, G., 3429 Morgan St.
Caplan, L., Century Bldg.
Carman, R. D., 4318 Olive St.
Chaddock, C. G., 3750 Lindell Ave.
Clark, W. J., City Hospital.
Clopton, M., 2604 Locust.
Collassowitz, A., 2921 S. Broadway.
Creveling, H. C., 2946 Washington Ave.
Crandall, G. C., 4278 Olive St.
Crossen, H. S., Olive and Sarah.
Curl, J. L., 2901 Clifton Ave.
Cummings, H. J., 1200 N. Grand Av.
Dalton, H. C., 3536 Easton Ave.
Davis, W., 5013a Page Ave.
De Lorme, H. A., 3960 N. 11th St.
Dean, Jno. McH., 319 N. Grand Ave.
Deutsch, W. S., 3135 Washington Av.
Dickerson, W. L., 5414 Easton Ave.
Dorsett, W. B., Linmar Bldg.
Dorsey, B. L., 1432 N. Taylor Ave.
Dudley, C. R., Linmar Bldg.
Duncan, J. H., Century Bldg.
Dudley, G. F., 4043 McPherson Ave.
Ehrhardt, R. T., Century Bldg.
Ehrenfest, A., Vanol Bldg.
Elbrecht, O. H., Female Hospital.
Engman, M. F., 2608 Locust St.
Epstein, M. J., 1905 N. 11th St.
Ewing, F. C., Century Bldg.
Faber, J. E., 2133 S. Jefferson Ave.
Fahlen, F., 116 N. Grand Ave.
Farmer, P. J., 5329 Vernon Ave.
Ferrel, H. E., 822 N. Grand Ave.
Fischer, W. E., 3556a Olive St.
Fischel, W. E., 2647 Washington Av.
Fisch, Carl, 3112 Pine St.
Ford, W. H., 4219 Olive St.
Forster, Davis, 6209 Easton Ave.
Forster, O. E., 320 N. Garrison Ave.
Fox, S. D., 2846 Manchester Ave.
Fry, F. R., Linmar Bldg.
Friedmann, J., 308 N. 6th St.
Freudenstein, W. H., 3836 Clark Ave.
Frankenthal, M. A., 4163 M'Pherson.
Fulton, A. L., 617 Chouteau Ave.
Funkhouser, R. M., 12 City Hall.
Furney, E. E., 3417 Morgan St.
Fuchs, W. H., 2830 Lafayette Ave.
Gamble, D. C., Century Bldg.
Gettys, H., Mo. Trust Bldg.
Gehrunge, E. C., Linmar Bldg.
Geitz, H. A., 2942 Washington Ave.
Glahn, C. P., City Hospital.
Glasgow, F. A., 3894 Washington Av.
Goodloe, H., Vanol Bldg.
Goodwin, E. J., Linmar Bldg.
Golland, M., 1712 Carr St.
Gross, J. H., Oriel Bldg.
Graves, S. C., 3608 Lindell Ave.
Graves, W. W., (in Europe).
Griffin, P. H., 2730 Washington Ave.
Grindon, Jos., 3894 Washington Ave.
Green, Jno. Jr., Vanol Bldg.
Greer, E. O., 2750 Park Ave.
Gradwohl, R. B. H., Century Bldg.
Gregory, E. H., 3525 Lucas Ave.
Guhman, M. J., 3505 N. 26th St.

- Horwitz, M. R., 3000 Olive St.
 Heuer, P. J., 303 N. Grand Ave.
 Hawley, T. S., 3065 Easton Ave.
 Hawley, N. J., Century Bldg.
 Herman, H. W., 1127 N. Grand Ave.
 Hempel, Max, 3857 N. Grand Ave.
 Homan, Geo., Odd Fellows' Bldg.
 Hughes, C. H., 3557 Olive St.
 Hypes, B. M., 2005 Victor St.
 Hasse, M. E., 1105 N. 7th St.
 Hennerich, J. P., 2921 S. Broadway.
 Houck, Louis, 903 Morrison Ave.
 Holtgrewe, F. W., 1601 Blair Ave.
 Houck, E. F., 1638 S. Jefferson Ave.
 Hoeffler, J. P., 2304 S. Compton Ave.
 Hoffman, Phil., 3337 Washington Av.
 Hill, Roland, 4605 Delmar Ave.
 Henderson, F. L., Century Bldg.
 Hall, Willis, 2332 Washington Ave.
 Helwig, H. J., 4268 Cook Ave.
 Hickman, H., 3353 S. Jefferson Ave.
 Harris, R. C., 1303 N. 30th St.
 Hopkins, T. A., 319 Century Bldg.
 Hopkins, M. J., 3400 Pine St.
 Houser, K., Century Bldg.
 Hoge, M. W., 3502 Franklin Ave.
 Harris, D. L., 926 Academy Ave.
 Herchenroder, L. C., 2904 Park Ave.
 Howard, A. P., 4039 Olive St.
 Hirsch, W. T., 2217 St. Louis Ave.
 Johnson, E. H., 2507 N. Spring.
 Johnson, H. McC., Linmar Bldg.
 Johnson, F. P., 3744 Finney Ave.
 Jennings, J. Ellis, Carleton Bldg.
 James, J. A. J., Carleton Bldg.
 Jones, M. D., 4068 Washington Ave.
 Jacobson, H., Mo. Trust Bldg.
 Jordan, A. P., 2755 Osage St.
 Jonas, E., 2329 Locust St.
 Jones, H. W., Linmar Bldg.
 Johnston, Wm., 219 N. Cardinal.
 Keith, W., Carleton Bldg.
 Klein, S., 1921 N. Grand Ave.
 Keber, J. B., Century Bldg.
 Kier, W. F., 3609 Lindell Ave.
 King, R. M., 1125 N. Grand Ave.
 Kuhn, D., 1746 Chouteau Ave.
 Kessler, E. H., 3446 Shenandoah Av.
 Kieffer, A. R., 4268 W. Belle Pl.
 Kieble, R. R., Mo. Pac. Hospital.
 Koetter, A. E., Olivia Bldg.
 Krebs, F. J. V., 2816 N. 14th St.
 Kane, R. Emmett, 1123 N. Grand Av.
 Kirschner, W. G., City Hospital.
 Krenning, W. J., 4226 Easton Ave.
 Loeb, Clarence, 2715 Locust St.
 Loeb, H. W., 3559 Olive St.
 Larew, J. L., 3030 Morgan St.
 Langan, W. J., 1444 N. 23d St.
 Lange, A. F., 2755 Osage St.
 Laidley, L. H., Carleton Bldg.
 Lutz, F. J., Grand & Lafayette.
 Ludwig, C. V. F., 1515 Chouteau Av.
 Long, J. M., 513 N. Sarah St.
 Loftus, W. V., 5071 Minerva Ave.
 Luedeking, R., 1837 Lafayette Ave.
 Lewis, B., Century Bldg.
 Lewis, Chas., 1402 Monroe St.
 Lare, H. S. P., 3452 Park Ave.
 Lightner, C. R., 2313 Washington Av.
 Lyman, H., Carleton Bldg.
 Lemen, J. R., Vanol Bldg.
 Link, J. J., Mermod-Jaccard Bldg.
 Luton, L. S., Olivia Bldg.
 McPheeters, Wm., 3452 Pine St.
 McClure, J., 1702 Market St.
 McLean, M. H., 3880 Washington Av.
 McKay, H. S., 2643 Geyer Ave.
 Morris, C. C., 2945 Franklin Ave.
 Martin, T. A., Century Bldg.
 Marx, Ella, 505 N. Theresa.
 Meisenbach, A. H., 2229 S. Broadway
 Meyer, H. H., 1823 N. Taylor.
 Miller, J. J., 4439 Morgan St.
 Moore, W. G., 86 Vandeventer Pl.
 Moore, J. W., 906 Pine St.
 Moore, H. M., Linmar Bldg.
 Moore, B. W., 3634 Washington Av.
 Mudd, H. G., 2604 Locust St.
 Mueller, E., 3334 California Ave.
 Marks, H., 2930 Morgan St.
 Murphy, R. Brent, 6035 Manchester Ave.
 Meng, E. R., 728 N. Taylor Ave.
 Morfit, J. C., 5101 Morgan St.
 Myer, J. S., 3894 Washington Ave.
 Mosby, C. V., 2313 Washington Av.
 Moore, J. G., 5259 Page.
 Murphy, J. C., 4263 Morgan St.
 Max, C. O. C., 2747 Lafayette Ave.
 Nifong, F. G., 704 N. Kingshighw'y
 Newman, L. E., Century Bldg.

- Nietert, H. L., Century Bldg.
 Nicholson, C. M., 2900 Washington Ave.
 Neuhoﬀ, F., 1318 Chouteau Ave.
 Nicks, H. G., 933a Goodfellow Ave.
 Newell, M. E., 3880 Washington Ave.
 Newcomb, Phil., 3353 Nebraska Ave.
 Norris, E. J., 4223 Russell Ave.
 Ohmann-Dumesnil, A. H., 5 S. Broadway.
 Outten, W. B., Mo. Pac. Hospital.
 O'Reilly, R. J., 602 N. 7th St.
 Orr, C. J., 3343 Morgan St.
 Porter, Wm., Commercial Bldg.
 Post, H. M., 27th & Washington Av.
 Powell, C. H., Century Bldg.
 Phillips, G. M., Commercial Bldg.
 Pim, L. T., Century Bldg.
 Popper, Morris, Mermod-Jaccard Bld
 Padberg, Louis R., 2759 Armand St.
 Pfeiﬀenberger, J. M., City Hospital.
 Prinz, Herman, Century Bldg.
 Remme, C. T., 400 S. 14th St.
 Reder, Francis, 4629 Cook Ave.
 Reismeyer, L. T., 2838 Lafayette Av.
 Robinson, A. C., Chemical Bldg.
 Rohlfing, H. A. L., 2602 Laclede Av.
 Rohlfing, C. G., 1200 N. 8th St.
 Rohlfing, L. C., 3814 Maffitt Ave.
 Rumbold, F. M., Century Bldg.
 Roseborough, F. H., Cor. Grand and Bell Aves.
 Ring, Frank, Chemical Bldg.
 Rinninger, Will, 1100 Madison.
 Rothstein, H. M., 3309 S. 13th St.
 Rice, D. F., 4256 Easton Ave.
 Ross, J. B., 1908 E. Grand Ave.
 Riley, R. D., City Hospital.
 Rush, Wm., 805 N. Grand Ave.
 Sluder, G., 2647 Washington Ave.
 Stauffer, W. H., Olivia Bldg.
 Saunders, E. W., 3003 Lafayette Ave.
 Schuchat, W. L., 2200 Chouteau Ave.
 Sheldon, G. H., Century Bldg.
 Scott, J. M., 3313 Morgan St.
 Soper, H. W., 813 N. 18th St.
 Saxe, E., Century Bldg.
 Suggett, O. L., Commercial Bldg.
 Senseney, E. M., Washington Ave.
 Strauss, Leon, Grand and Franklin.
 Sibley, F. C., 2735 Gamble St.
 Stewart, Floyd, Chemical Bldg.
 Scherck, H. J., Century Bldg.
 Schisler, E., 2027 S. Jefferson Ave.
 Schwartz, H., 1723 Chouteau Ave.
 Schwarze, A., 2921 S. Jefferson Ave.
 Schlossstein, A., 2401 S. Broadway.
 Schlossstein, A. G., 3153 Longfellow Blvd.
 Shapleigh, J. B., 2608 Locust St.
 Spiegelhalter, J., 2166 Lafayette Av.
 Steedman, J. G. W., 2803 Pine St.
 Steer, Justin, 3126 Washington Ave.
 Summa, H. H., 3707 N. 11th St.
 Summa, Hugo, 2249 St. Louis Ave.
 Smith, Elsworth, 116 N. Grand Ave.
 Smith, J. W., Mermod-Jaccard Bldg.
 Sauer, W. E., Olivia Bldg.
 Shattinger, C., 2924 S. Grand Ave.
 Sharpe, N. W., 3505 Franklin Ave.
 Shields, W. B., 303 N. Grand Ave.
 Shoemaker, W. A., Carleton Bldg.
 Schlueter, R. E., 740 S. 4th.
 Spencer, H. N., 2723 Washington A.
 Simon, J. H., 4104 Manchester Ave.
 Schuck, Phil., 1420 S. Broadway.
 Spain, K. C., Carleton Bldg.
 Spooner, E. W., 1116 Talmage Ave.
 Sutter, O., Century Bldg.
 Tanquary, J. H., 930 Belt.
 Tuholske, H., Jefferson & Locust Sts.
 Tuttle, G. M., 3509 Morgan St.
 Talbot, Hudson, 3153 Laclede Ave.
 Trotman, C. A., 3524 Lawton Ave.
 Tiedemann, E. F., 2253 S. Vandeventer Ave.
 Taussig, A. E., 2627 Washington Av.
 Taussig, F. J., 534 N. Vandeventer.
 Tupper, P. Y., Linmar Bldg.
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 Vogt, W. H., Mo. Trust Bldg.
 Valle, J. F., 3303 Washington Ave.
 Vaughan, J. W., 4001 West Belle Pl.
 Vasterling, P. F., Mo. Pac. Hospital.
 Von der Au, O. L., 1301 Geyer Ave.
 Vollmer, P., 2358 S. 12th St.
 Van Hook, H. M., City Hospital.
 Webster, E. E., 6641 Vermont.
 Ware, Chas., 1404 Olive St.
 Wesseler, F. W., 2308 Gravois Road.
 Whelpley, H. M., 2342 Albion Pl.
 Wilson, A., 3878 Page Ave.

Witherspoon, T. C., 4318 Olive St.
 Wilkes, B. A., Linmar Bldg.
 Winter, W., 3632 S. Broadway.
 Woodruff, F. E., 2925 Wash'gton Av.
 Wells, H. P., 2313 Washington Ave.

Wiatt, W. S., East St. Louis, Ill.
 Williamson, J. W., 5600 Cates Ave.
 Ward, E. P., 2734 Armand St.
 Wiener, M., Linmar Bldg.
 Zahorsky, Jno., 1460 S. Grand Ave.

ST. LOUIS COUNTY.

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 Dr. HOWARD CARTER, V.-Pres.
 Dr. H. G. WYER, Secretary.

Dr. N. N. JENSEN, Treasurer.
 Dr. W. H. WYER, Delegate.

Members.

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 Armstrong, J. H., Kirkwood.
 Carter, Howard, Webster Grove.
 Coleman, H. T., Pattonville.
 Campbell, A. V., Glendale.
 Dunnivant, C. A. P., Kirkwood.
 Dalton, Martin, Ferguson.
 Eatherton, J. W., Allenton.
 Greensfelder, Harry, Central.
 Ham, W. J., Creve Coeur.
 Heidorn, W. H., Bridgeton.
 Higgins, R. M., Webster Grove.
 Inman, S. L., Valley Park.

Jensen, N. M., Florissant.
 Knabb, F. P., Valley Park.
 Koch, O. W., Des Peres.
 Kinner, Wm., Clayton R. R. No. 1.
 Moore, R. D., Central.
 Pitman, John, Kirkwood.
 Pfister, J. D., Fern Ridge.
 Randle, H. T., Clayton.
 Reynolds, S. H., Fenton.
 Thurman, E. J., Fenton.
 Will, S. J., Mehlville.
 Wyer, H. G., Kirkwood.

SCHUYLER COUNTY.

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 Dr. J. B. BRIDGES, Vice-Prest.
 Dr. H. E. GERWIG, Secretary.

Dr. J. T. JONES, Treasurer.
 Dr. W. F. MITCHELL, Delegate.

Members.

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 Gerwig, H. E., Downing.
 Jones, J. T., Queen City.

Mitchell, W. F., Lancaster.
 Mitchell, E. L., Lancaster.

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 Dr. A. L. DAVIS, Vice-Prest.

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 Dr. E. E. PARRISH, Delegate.

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 Bondurant, W. E. H., Memphis.
 Davis, A. L., Arbela.
 Johnson, F. M., Gorin.

Maynard, Geo. H., Arbelo.
 Parrish, E. E., Memphis.
 Pile, O. F., Memphis.
 Platter, A. E., Memphis.

SHELBY COUNTY.

Dr. WM. CARSON, Prest.
 Dr. J. D. SMITH, Vice-Prest.

Dr. L. W. DALLAS, Sec.-Treas.
 Dr. WM. CARSON, Delegate.

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 Chapman, Chas., Shelbyna.
 Dallas, L. W., Hunnewell.
 Devin, J. F., Shelbyville.
 Dobson, D. A., Hunnewell.
 Gentry, J. H., Shelbyna.
 Owens, Wm., Oak Dale.
 Pollard, H. M., Shelbyna.

Roy, F. K., Hagers Grove.
 Smith, J. D., Shelbyna.
 Vaughan, H. C., Shelbyna.
 White, Alex., Lakenan.
 Willis, H. T., Shelbyna.
 Wood, A. M., Lentner.
 Wood, A. G., Lentner.

SULLIVAN COUNTY.

Dr. J. C. KESSENGER, Prest.
Dr. G. S. MILNES, Sec.-Treas.

Dr. A. W. WIDNER, Delegate.

Members.

Garner, R. L., Pollock.
Helton, J. W., Green City.
Kessenger, J. C., Milan.
Mairs, E. J., Newton.

Milnes, G. S., Milan.
Reid, F., Humphreys.
Widner, A. W., Newton.
Witter, W. L., Milan.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

The Secretary of the County Society will please furnish the Secretary of the State Society the dates of the Meetings of his County Society.

COUNTY.	DATE OF MEETING.
Atchison	Quarterly. January, April, July, October.
Audrain	
Boone	Monthly. First Monday.
Buchanan	
Butler	
Caldwell	Quarterly. July October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	
Cass	Quarterly. First Tuesday of March, June, Sept. Dec.
Chariton	Monthly. Last Thursday.
Clark	Subject to the call of the President.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct..
Current River	Quarterly. August, November, February, May.
Daviess	
Gasconade	
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	
Howard	Monthly. Third Tuesday.
Howell	First Thursday of January, March, May.
Jackson	Bi-monthly. Second and Fourth Thursday .
Jasper	Bi-monthly. First and Third Mondays.
Jackson	Quarterly. June, Septembr, December, March.
John T. Hodgen	
Laclede	Bi-annual. First Mondays May and November.
Linn	Quarterly. Tuesday nearest full moon, Jan., Apr., July, October.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Maries	Quarterly. First Thursday of Feb., May., Aug., Nov.
Marion	
Miller	
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Nodaway	Monthly. Second Tuesday.
Pettis	
Phelps	
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Randolph	
Ray	Monthly. Third Wednesday.
Reynolds	
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues., of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County	Bi-monthly. Second and Fourth Wednesday.
Schuyler	
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Sullivan	

It is believed the infomation in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison.....	E. E. Richards.....	Tarkio.....	A. McMichael.....	Rockport.
Audrain.....	C. T. Vernon.....	Mexico.....	C. A. Rothwell.....	Mexico.
Boone.....	R. S. Austin.....	Halsville.....	J. A. Fisher.....	Columbia.
Buchanan.....	W. T. Elam.....	St. Joseph.....	Chas. W. Fasset.....	St. Joseph.
Butler.....	Chas. F. Greene.....	Poplar Bluff.....	J. J. Norwine.....	Poplar Bluff.
Callwell.....	G. W. Goins.....	Breckenridge.....	Tinsley Brown.....	Hamilton.
Callaway.....	C. H. Christian.....	New Bloomfield.....	M. Yates.....	Fulton.
Camden.....	G. M. Moore.....	Linn Creek.....	G. T. Myers.....	Macks Creek.
Carroll.....	W. C. Baird.....	Bogard.....	R. F. Cook.....	Carrollton.
Cass.....	H. Jerard.....	Pleasant Hill.....	J. S. Triplett.....	Harrisonville.
Chariton.....	M. B. Austin.....	Brunswick.....	C. A. Jennings.....	Salisbury.
Clark.....	H. W. Harris.....	Winchester.....	A. C. Bridges.....	Kahoka.
Clay.....	L. J. Jones.....	Linden.....	F. H. Matthews.....	Liberty.
Cole.....	R. E. Young.....	Jefferson City.....	G. Ettmueller.....	Jefferson City.
Current River.....	J. A. Chilton.....	VanBuren.....	Frank Hyde.....	Eminence.
Davies.....	W. N. Keener.....	Jamesport.....	M. A. Smith.....	Gallatin.
Gasconade.....	J. D. Sebo.....	Bland.....		
Grundy.....	J. A. Asher.....	Trenton.....	W. D. Fulkerson.....	Trenton.
Henry.....	J. M. Miller.....	Montrose.....	F. M. Douglas.....	Clinton.
Holt.....	J. M. Davis.....	Craig.....	W. C. Proud.....	Oregon.
Howard.....	P. C. Smith.....	Fayette.....	C. W. Watts.....	Fayette.
Howell.....	J. C. B. Dixon.....	West Plains.....	H. C. Shuttee.....	West Plains.
Jackson.....	J. W. Kyger.....	815 E. 31st St., Kansas City.....	E. L. Chambliss.....	525 Rialto Bldg. Kan. City.
Jasper.....	R. L. Neff.....	Joplin.....	J. D. Pifer.....	Joplin.
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ORIGINAL ARTICLES.

THE HOME AND SANITARIUM TREATMENT OF TUBERCULOSIS.*

BY WILLIAM PORTER, A. M., M. D., St. Louis.

Last year when the symposium on tuberculosis was held before the St. Louis Medical Society the same subject was given me. If in attempting to present it before this association with all the strength of honest conviction, I reproduce some of the arguments there used, I ask that I be spared the charge of "vain repetition." We are now in the midst of a quiet but most effective revolution in our methods of care and treatment of this disease, and it is only by repeated demonstrations of the facts and deductions most potent in bringing about this revolution that the truth can be finally and firmly fixed in the minds of the profession and of the laity.

The last decade has placed two truths clearly before us:

First.—Tuberculosis is a preventable and curable disease.

Second.—The home and the sanitarium have been the most effective factors in demonstrating this truth.

* Read at the Symposium on Tuberculosis before the Missouri State Medical Association, May 17, 1904.

The statements of the curability, and even the self limitation of tuberculosis have been on record from before the time of the Rokitanskys, but until recent years they have been received as a pathologic hypothesis rather than a practical verity. Twenty-five hundred years ago Hyppocrates said that all consumptives will die, and this dictum has had a place in the minds of the profession no less abiding than the Hippocratic oath.

A few years ago the physician aimed at little more than some general and time-honored prescription and a parting benediction to a climatic Eldorado, with little thought or knowledge of special fitness for the individual case. The desire on the part of the patient "to do some great thing" was gratified, and the physician relieved of at least one of his many responsibilities. Nor has the idea of climatic cure been a definite one. Flint used to send his patients to the plains of Illinois and reported cures. Then Colorado became the Mecca, the California coast was tried

and the foot-hills of the Sierras were populated with the unfortunates who needed more than they found in their exile. Backward the tide rolled through Arizona and New Mexico. Texas became the land of promise. The claims of Florida were lost in the multitudinous reports that hailed from the mountains of the Carolinas, and to-day we have the best work done in such places as the Saranac Sanatoria, the Phipps Institute, the Loomis Sanatoria and others in the climate from which ten years ago the tubercular fled to Eldorado's never reached. How many of you can recall cases which, having true tuberculosis, went to some distant resort and came back well? The comforts of home and the association of friends more than balance the therapeutic value of climatic change, especially when handicapped by nostalgia, indifferent food, the danger of renewed infection in association with other tubercular cases ignorant of the laws which govern the propagation of the disease.

This is the prelude to the proposition that in the home and in the sanitarium you can have all that is necessary in the so-called "climate cure" and the other necessities no less important. Just here a word as to our own climate. In our own state, much as we disloyally decry its climate, the annual death roll per 1,000 of population is only 1.32, while the average for all the states and territories is 1.44. It seems to me that these figures alone, which are deducted as carefully as possible from official reports of the Health Boards, should cause us to hesitate to apply the time-worn, heart-breaking, ineffectual formula, "change climate" to

any but the most exceptional cases.

What have we in place of this? The best, the very best. Four things are demanded in every case. Without desiring to trespass on the province of the paper that is to follow, I will say without fear of contradiction that these are: Fresh air, proper and abundant nourishment, rest and freedom from worry and introspection. All of these can be had in a larger and better way at home, or in a home-like sanitarium, than the average health resort or place of exile.

Dr. Flick, whose practical teaching has done much to give us a rational treatment in tuberculosis, says: "Climate itself is of little value in the treatment of consumption. It is the outside air which counts, and it makes very little difference where this outside air is gotten from, so it is gotten every day and all the day and night." The very best results in this country are being obtained in sanatoria in New York and Massachusetts, while the worst are, I truly believe, in Arizona and New Mexico.

Not that there is anything inimical in climatic conditions there, but that there is no adequate compensation for the privations, nostalgia and non-systematic living, nor sufficient guard against new infection from the crowding together of careless and ignorant sufferers. Those cases that do well by changing climate should do equally well in a well conducted sanitarium, or, as I firmly believe, in the home, after intelligent instruction in personal care. I know that this statement will not be universally accepted, but the sentiment is growing none the less.

One of our highest authorities

(Knopf) says: "If I had to choose between sending a patient to what is usually considered an ideal specific climate, but where he would live as in an ordinary health resort, or keeping the patient at home in a fairly pure atmosphere and applying the hygienic and dietetic treatment under constant medical supervision, I should choose the latter and think the patient had a far better chance of recovery."

In a very elaborate work, Blumfield has given the results of his daily observations throughout the year of the influence of the various meteorologic changes exerted on a large number of phthisical patients. His conclusions prove what Detweiler has been preaching for twenty years, "that temperature, atmospheric pressure and humidity scarcely influence the condition of the consumptive." Weber, Dujardin, Beaumetz and Von Leyden have voiced the opinion that the successful treatment of consumption is possible where there is pure air, good food, proper hygienic conditions and carefully regulated exercise.

In the last decade the careful student has compiled certain facts regarding tuberculosis. He finds that it is a communicable disease, that it is limited, that the specific germ is not a virulent one as in diphtheria, or so readily transmissible as in yellow fever or smallpox. He has gained certain knowledge regarding its communicability and has formulated methods to limit it in the home, workshop and in the school. In the individual he has seen that the invasion and multiplication of the specific germ depends largely on lessened local resistance and perverted function, and

that the process of advance is slow. As a fitting practice deduction, he has found that tuberculosis is curable under the same conditions in which most other diseases are curable.

With the facts before him, the physician has begun to formulate new methods in general and to make more careful study of the individual. The result of his experience has been the coming into favor of the home and sanitarium treatment of tuberculosis, and a marked diminution of the death rate from this cause in countries where such treatment has obtained most favor. If we would limit tuberculosis there must be a system of education for the public and special care for the individual. In our anxiety for the one infected, we too often forget our responsibility for the many as yet unaffected. The latter is the greater need and in working out the problem of protection the sanitarium should be as potent as in caring for the sick. It is these considerations that have made the home and sanitarium treatment of tuberculosis the largest field of therapeutic work to-day. Practically the subject is one, for the sanitarium should be a home and the home a sanitarium.

The care of each case must include the thought of protection to others. If it be true that an advanced case of tuberculosis may expectorate many millions of bacilli daily, if these bacilli are viable for days under proper conditions of heat and humidity, certainly each case taken from the home or the public thoroughfare is one less source of danger. Not only that, but the sanitarium methods for the care of the sputum can be taught in the home. May I again urge this upon

my fellow-workers in this department.

I believe there are two principal ways for the transmission of the bacilli from the sputum: First, by drying of the particles and their inhalation, and, secondly, by unclean utensils and flies. I have more than once caught flies crawling over a cuspidor in which there was tuberculous sputum, and found bacilli in the fluid in which the flies had been drowned.

In the home and sanitarium the sputum can be easily cared for. My favorite germicide is the ordinary concentrated lye of the shops. It saponifies every particle of the sputum, thoroughly destroys the bacilli, is non-odorous and cheap. The best sputum cup I have ever found is the ordinary tin cup with hinged lid—painted or enameled on the outside. It can be partly filled with saw dust on which is sprinkled some of the caustic lye. When emptied it should be washed in a solution of lye and then rinsed in pure water. Expectoration in anything but the proper receptacles should not be permitted. The same method can be taken with the floor cuspidors which should always be covered. At Mt. St. Rose the individual sputum cups are emptied into cuspidors, which are of iron, having self-closing lids. These are taken to the furnace, the lid removed and the iron receptacle placed in the fire for five minutes.

It is not a burdensome matter but a most important one that all eating and drinking utensils used by a tubercular patient should immediately after service be put into boiling water, which is a never-failing destroyer of bacilli, while clothing that cannot be easily

washed should be fumigated in a closed press. This may not be so important in itself, yet it is in line with the care that should be taken whenever practicable and always at institutions.

In every home and at every institution there should be the most perfect ventilation. The demand is not for air at a certain temperature or humidity, or a fixed degree of rarefaction, but pure unused air that has not been devitalized, containing its full equivalent of oxygen and free from toxic and irritating admixtures. Such air is not hard to find but it is another matter to make the best use of it.

In our work at Mt. St. Rose (and I beg that I may be pardoned if I refer frequently to it in illustrating this part of my subject) we had at first the greatest difficulty in preventing the patients from closing the windows and doors at night. The question of day ventilation is not difficult with large halls and verandas, but to supply fresh air to the room or ward without the ever objectionable draught was another matter. The method now in use is satisfactory and is readily adapted to any home. A twelve-inch board, resting on edge on the window sill and extending to the side of the frame, is held by hooks two inches from the sash. The raising of the sash to less than the top of the board permits free ingress of air without any direct draught. There is also a guarded opening where the sashes meet. With this simple addition, windows screened, transoms open into the halls and windows open at each end of every hall, our patients practically sleep in the open air, while in day time they live in it.

During the summer many of our patients sleep out of doors, and were you to visit the sanitarium tonight you would find rows of cots on the open verandas where our selected cases aver that they sleep better and longer than in their rooms.

Rest and exercise are potent factors in the cure of tuberculosis, but they cannot be applied by any general rule. In most cases the patient is restricted in his exercise for the first few days after admission, and if his temperature be above 100° he is confined to his bed. The most of our patients take long rests in chairs on verandas after meals, followed by gentle exercise gradually increased. Chest exercise for lung development is required of all who are able at regular intervals, and walking parties for definite distances are sent out daily when the weather permits. One of the party carries a pedometer and on no account is a prescribed distance to be exceeded.

Hydrotherapy is being gradually introduced. So far only the spinal douche has been prescribed for daily use. I believe this is as effective as more complicated procedures, and care must be taken not to tire or annoy the patient. The free use of water internally is encouraged, and a number take a teaspoonful of table salt in a glass of water night and morning. Its laxative and alterative effect is often grateful. Pure water should be the companion of pure air in the care of tuberculosis.

The proper clothing of the tubercular is important. Generally the patient's chest is overclothed. The average case as soon as admitted is relieved of the numerous layers of flannel and chamois, a tepid friction

bath is given, light flannels ordered, and he is put to rest. When he is permitted to leave his room very little, if any, added protection is used around the chest, but care is taken to have the feet and limbs well clothed, but never sufficiently to produce perspiration. No tight-fitting corsets or waist bands are permitted.

The dietetic treatment of tuberculosis calls for much care and patience. Not only should the food be varied, but it must be changed at times in each case. To feed a patient to the limit of assimilation without over-feeding him, is a problem. In our institution a mixed diet is used with eggs and milk as freely as possible. The early morning meal is generally light, followed by egg and milk; an early dinner, a mid-afternoon lunch, and five o'clock tea. Most of the patients have egg and milk again at bed-time. The diet list is somewhat in accord with that advised by Knopf in his work on "Pulmonary Tuberculosis."

The subject of medication is foreign to this paper, but there are two indications of which I would speak. One is the weak heart, and the other incomplete emptying of the lower bowel. The former must be estimated in ordering rest and as a demand for strychnia and, possibly, digitalis in small doses—the latter must be considered as a possible cause of afternoon pyrexia from auto-infection. My constant practice, where the ascending colon is loaded, is to give a laxative high enema daily till the bowel is emptied, and a normal salt enema each day thereafter. It is most interesting to note the effect of this treatment upon the temperature,

What are the results of home and sanatorium treatment? It is difficult to make an accurate statement of the results of home treatment in private practice, but I am convinced, in my experience at least, better results are obtained than in the days when I shifted the responsibility to the haphazard uncertainties and cruelties of the "get-away" clan. I have not sent a tubercular patient away in years unless the conditions of home life awaited him at the journey's end.

Statistics from institutions are more valuable. At the great Falkenstein Sanatorium, Detweiler reports 14 per cent. cured, 14 per cent. relative cures and 45 per cent. improved. At Goebersdorf the percentage is even better. At the Loomis Sanatorium the cures are over 25 per cent. of all cases, and 50 per cent. improved. From the Adirondack and the Winyah Sanatoria come the same encouraging reports.

I wish we were far enough along in our Mt. St. Rose work to make a report more valuable. Our institution has been opened but eighteen months, and while the time is too short to speak confidently of many cures, there is much to encourage. We admitted during the first fourteen months till January 1, 1904, 248 cases. Of 14 in the first stage, 7 recovered and 6 improved; 52 in the second stage gave 4 recoveries, 39 improved; of 128 in the third stage, but 2 recovered, 33 improved. In explanation of the small percentage of cures, I may add that most of our cases are of the far-advanced stage, such as are not admitted to many institutions; and, further, that among those classed as "improved" are a

number that may soon, I hope, be set down as cured. Clinically, we divide the cases into three classes, but use a different division for the microscopic evidence. A patient may be in the first stage clinically, but show a large number of bacilli (say an average of ten to a field), which would place him in the fifth class in the microscopic record; and we have many of these.

From a number the bacilli have disappeared, and, as far as we can keep track of them at their homes, they are doing well. One girl has gained thirty pounds during the winter; several men have gained twenty-five pounds. The greatest gain in weight has been eight pounds in three weeks. There has been a marked increase in the average strength and courage of patients in the first and second stages, and none of the depression so often found from the association of invalids. Some of the reasons for this are that the patients are not permitted to talk over their condition with each other, and that they are kept constantly employed (when not resting) with games, books, cards, needlework and with the care of flowers.

Already a general advance is being made on the "great white plague." In Germany, the home of sixty-four private and public sanatoria, there has been a wonderful decrease in the number of deaths from tuberculosis. In London there is a decrease, and in New York the rate has fallen from 4.42 per 1,000 in 1886 to 2.89 in 1901, and 10 per cent. less than last year.

In St. Louis a strong society for the limitation of tuberculosis has been formed, and if it can equal the

record of the New York and Philadelphia societies it will mean the saving of forty thousand lives in our city alone in one generation. Let me beg of you to aid in all that makes for the cure and prevention of tuberculosis as we would try to cure and prevent any other infectious disease.

Flick says: "Tuberculosis is one of the most curable of all diseases"—*not* consumption, when all resistance and function is impaired, but in the early

stages of which our class of fourteen last year is an instance. It is your duty, by early diagnosis and constant practical direction, to see that patients of the first class do not join the large number already in the third class.

Pasteur said: "It is in the power of man to cause all parasitic diseases to disappear from the earth." How much of that power have we exercised?

THERAPEUTICS OF TUBERCULOSIS.

BY N. P. WOOD, M. D., Independence, Mo.

In the brief time allotted this paper it will not be possible to review all of the therapeutic agents that have been used in the treatment of this disease. Neither will climatic or sanitarium treatment be included, but will be confined to the home treatment of the unfortunate condition, known as general tuberculosis; naming only such agents and methods that have served the best purpose in this connection. When we remember the fact that tuberculosis has claimed its numberless victims from all classes, in all ages and from all nations, together with the fact that great and persistent effort has been made to obtain some agent or measure to control or cure this, the greatest enemy of the human race, we are driven to the regretful admission that therapeutics has no specific in the treatment of tuberculosis. Then in the management of general tuberculosis, as we now understand it, there can be but two objects in view.

First, improved nutrition, and second, mitigation of unkind symptoms.

Improved nutrition implies good hygienic surroundings, exercise in open air, including lung gymnastics, good food, tonics and a cheerful spirit. In the attainment of the first of these objects we strive to improve the appetite and the digestion, stimulate secretions, control cough, fever, sweats, diarrhea and hemorrhage.

Patient should be kept in open air as much as possible. When fever is high he should be kept in bed, but bed put in the most airy place the surroundings will permit.

If able, allow patient to exercise moderately, stopping short of fatigue. This will improve appetite and digestion and increase resistive force. Woolen or silk suits should be worn the entire year.

Proper feeding is one of the most important factors in the management of tuberculous people. Food should be carefully selected, deliciously prepared and judiciously administered; selecting those articles containing the most nutrition to given quantity. Animal diet will usually meet these

requirements best, such as milk, eggs, beef, mutton, chicken, fish, &c., and as much as can be digested—no more.

If digestion is bad, small amounts frequently given will be better borne. Acid hydrochloric dilute or some form of pepsin, or both, or creasote, will aid a delinquent stomach. The administration with food of artificially obtained gastric juice, as suggested by Hepp, will aid digestion.

Before eating or drinking patient should wash out mouth with some good antiseptic solution. This is especially important in laryngeal or pulmonary tuberculosis. In thus doing we may remove one of the most fruitful causes of secondary gastro-enteritis, so common in this disease. The fact that gout and tuberculosis are seldom found in the same individual, has suggested the idea of producing a gouty diathesis.

This was undertaken by the administration of urea by Harper and others and a strictly meat diet, with some apparent results in joint tuberculosis, but none in pulmonary.

The therapeutic agents entitled to a place in the treatment of general tuberculosis are really few in number.

Cod-liver oil, iron, arsenic, strychnia and creasote. While many other agents have been used and extolled, none have specific action. And the above-named ones are entitled to the highest esteem in the treatment of this desperate condition.

Cod-liver oil is an old and has long been a popular remedy. It is indicated whenever nutrition fails. Children usually take it better than adults. And it is especially adapted to joint, bone and glandular tuberculosis. The

pure oil is preferable, given in drachm to half-ounce doses.

Small doses are many times well borne when larger ones are not well received by the stomach. If it or any other agent, interferes with digestion, they must be discontinued promptly and permanently.

Any agent that retards digestion or disturbs nutrition is contraindicated. Iron, arsenic and strychnia are good tonics.

Iron is indicated in anæmia as a blood tonic and arsenic as a general tonic, and strychnine is especially serviceable when heart is weak and irregular. A dose of gr. 1-40 in early morning will often enable patient to take morning bath and alcohol rub.

These three combined in the form of ferri carbonate grs. iii to v, arsenious acid gr. 1-30, strychnia sulphate gr. 1-40, made in pill, is a good tonic and is usually as satisfactory as any tonic we may suggest.

Creasote is perhaps one of the most useful agents in the whole catalogue of remedies.

The strange bit of its history is, that after having fallen out of use for more than half a century, it has been revived and to-day holds the highest place in the therapeutics of this unfortunate malady.

By its judicious use it appears to improve the appetite and digestion, by discouraging fermentation and thus aid materially in attaining the chief object in the treatment, *i. e.*, improving nutrition.

Is also useful in intestinal tuberculosis. For intestinal disturbances it may be given in a keratin capsule, as

suggested by W. H. Flint, which capsule is not supposed to dissolve until it reaches the alkaline secretions of the intestine.

Is best tolerated in small doses. At first m. i to ii, which amount may be increased gradually until m. x or xv be given.

The very large doses some clinicians have reported given are objectionable on the grounds they are apt to irritate the stomach and urinary apparatus.

Creasote inhalations are useful when the larynx is involved.

Guaiacol is preferred by some physicians and patients. But when both are rejected by patient their salts may be used.

Cinnamic acid has claimed attention recently, but results thus far do not warrant a very high commendation.

Ichthyol has claims of positive virtue in tuberculosis—especially when the bones, glands or larynx are involved, and in tuberculous ulcers.

After ulcer is curetted it is applied to exposed surface.

It may serve well in intestinal tuberculosis combined with iodoform. Iodoform in joint tuberculosis is a familiar treatment to every physician and needs no comment.

The comfort and welfare of the patient demand attention to some of special symptoms by way of mitigation. Such as fever, cough, diarrhea and hemorrhage.

There is perhaps no fever so sure in its appearance and so persistent in its stay as this hectic fever. The fact that it is consuming the strength of the patient and at the same time associated with a disease so ravenous in its assault on the vital forces, some-

times puts a doctor wondering what he shall do with it.

Because of these facts the coal tar preparations are contraindicated, theoretically, but practically are admissible in some cases.

If combined with a heart stimulant they are less dangerous in small doses than the consuming process of a high temperature.

Three or four three-grain doses of phenacetine with strychnia, quinine or whisky an hour before fever period will control the fever measurably and add much to patient's comfort.

But the fever may be cooled by baths and sponging. While fever runs high patients should be kept in bed.

Sweating can usually be controlled ac. sul. arom., atropia, agaricin and the salt shirt.

A woolen shirt wrung out of a strong salt solution, dried and worn during the sweating period lends good service.

Cough is another very troublesome symptom. If loose give whisky or brandy; but if a dry cough, whether light or a hard cough, some sedative is desirable, as heroin, codeine, morphia. If given in small doses and often repeated they control it very much more satisfactorily than the cough syrups, composed of amm. salt, ipecac, squills, &c. These mixtures are generally nauseating.

In all cases of persistent cough the posterior nares, pharynx and larynx should be examined. It will occasionally be found that a fissure or an ulcer is responsible for the cough. In such conditions more relief from the cough will come from local application of some good antiseptic, and the inhalation of creasote, benzoin, &c.

Diarrhea is frequently present as a secondary and occasionally as a primary condition in tuberculosis. In the early stage, when not severe, the regulation of diet, care not to swallow sputum, and bismuth and pepsin, will in most cases give relief. Later in attack, when the diarrhea is more severe, opii, lead, acid tannic, &c., may be required.

If tuberculosis of the intestine is found it is very proper to resort to morphine, rather than temporize.

Hemorrhage is sometimes troublesome and dangerous.

If profuse, put patient at rest in bed and narcotize gently; suprarenal capsule may be given. But most of the homostatics, as ergot, tannic acid, &c., are useless, if not harmful.

Strapping may be resorted to with some benefit. Pads applied to axilla and over femoral vein sufficiently tight to arrest in a measure the return current, but not tight enough to interfere with the arterial current; strap two limbs at a time, and after twenty or thirty minutes gradually loosen straps and apply to the other two limbs. Thus the patient is "bled into his own limbs," which reduces the

blood pressure in the lungs. The hypodermic injection of gelatine has been used for hemorrhage, but it has so often failed and has been so frequently followed by tetanus that it has not yet taken a credible place among the hemostatics.

Intra-tracheal and intra-pulmonary injections have been found both dangerous and productive of little good.

The serum treatment has been used in recent years and has had some very enthusiastic supporters. While in some cases it has appeared to arrest the progress of the disease, as shown by checking the fever and sweats and the fattening of the patient for a time, the results have not been convincing as a curative agent. However, the serum treatment is at present stimulating the highest hope of a panacea for tuberculosis.

The day may come in the progress of medical science when some agent or method may be discovered for the cure of tuberculosis. But the day *will* come, when through prophylactic medicine, tuberculosis will be almost entirely eliminated from the nomenclature of medicine.

RESPIRATORY INFECTIONS IN CHILDREN DURING THE PAST WINTER.

BY JOHN ZAHORSKY, M. D., St. Louis.

It was a happy advance when the more severe diseases of the alimentary canal were grouped under the general term—gastro-enteric infection, since it expressed the origin of the disease in a single name. Similarly, as I have been teaching for several years, the acute diseases of the respiratory

tract should be designated by the general term—respiratory infections, reserving the term inhalation infections for local and general diseases, the pathogenic germs of which gain entrance to the system by means of the inspired air.

In the first place, we must rid our-

selves of the old concept "colds." "Colds" are not due to cold at all, but to pathogenic micro-organisms. In children, especially in infants, the etiologic significance of dampness and exposure is very slight, since "colds" are contracted without these influences in the majority of cases, and even when these factors have been present through neglect, they act only as predisposing causes. "Colds" are contagious, are due to bacteria and their active work in winter depends chiefly on the congregation of people indoors, while in summer, as we live practically in the open air, the conveyance of these germs through the air from one to another is more difficult. The cold air acts as a predisposing but not essential cause, as most respiratory diseases are caught without exposure to cold. "Colds" are caught one from the other, just as measles is carried from one patient to the other, and susceptible individuals will get a cold when in proximity to some one sneezing or coughing, whether he has been exposed or not.

We see a gradual change in the attitude of the profession toward these diseases, and in a few years it is probable that this concept will be generally used.

We should remember that cases of rhinitis, bronchitis and pharyngitis are not, as a rule, simple, but other portions of the respiratory tract than named by the term are involved. In fact, the inflammation usually begins at one point and spreads up and down the respiratory tube, so that successively, or often simultaneously, a rhinitis, pharyngitis or bronchitis, or even pneumonia, are present. The infection is overcome by the usual heal-

ing processes of the body, that is, the formation of specific antibodies. The development of these to a different degree or rapidity makes the so-called "cold" a simple or serious affection in different persons, or in the same person, at different times. It is still doubtful whether any internal or local medication, outside of relieving the symptoms, can aid in throwing off the germs of cold.

But what are the germs of "colds" or what are the usual causes of respiratory infections?

The profession generally has accepted the germ theory of influenza, and tacitly have assented to call even other respiratory diseases as infectious, since so many acute respiratory diseases are called grip. But is grip as common as it is diagnosticated? Is influenza the cause of most severe inflammations of the air passages? What other infections are mistaken for that of influenza?

With these and similar questions I have struggled for several winters, and I concluded that it was difficult to distinguish isolated cases of influenza from other respiratory infections, that we had no pathognomonic signs of either. Yet these signs are fairly definite, viz., influenza is characterized, first, by the short incubation stage, abrupt fever curve, rather little local disturbance, but much pain and general depression. While this combination of symptoms, when repeated in several individuals, is pathognomonic, it may be simulated in every conceivable way by other infections.

During the past winter I have tried to control my clinical diagnosis by a microscopical study of the secretions of the throat, nose and bronchi; in many

cases cultures were also made, but as the following out of all varieties of bacteria was too laborious and really proved nothing more than could be told by microscopical examination, this latter method was mostly employed. The smear preparations carefully obtained were stained by diluted carbol—fuchsin or Loeffler's methylene blue. Occasionally Gram's method would be used.

The results of these examinations and the clinical studies showed that we had little true influenza during the last winter. Several such cases were seen during the month of February. The vast majority of infections were caused by the pneumococcus. The coryza, pharyngitis, otitis media, laryngitis, bronchitis and bronchopneumonia were caused by the same organism that causes croupous pneumonia. Beginning last September, the family epidemics extended throughout the winter. In several families a true croupous pneumonia was preceded, associated or followed in others by severe "colds" and coughs. Hence I must hold that the cases of croupous pneumonia were but incidents in a wide-spread pneumococcus epidemic.

In another series of cases only the streptococcus could be found. In a third series of cases the influenza bacillus was observed. Another interesting series of cases occurred among children and was characterized by an irregular fever and marked swelling of the cervical glands, and must fall under the general heading, glandular fever. No characteristic micro-organism was demonstrated in the pharyngeal secretion of these cases.

All of this shows that we must be very slow to diagnosticate influenza.

The differential diagnosis of these varied infections is by no means easy without bacteriologic examination. Clinical features in connection with other facts bearing on the source and prevalence of the disease need to be studied much more carefully in connection with bacteriologic examination before definite tables of differential diagnosis can be formulated.

Briefly, the signs of the diseases as known may be stated as follows:

The influenzal infection is characterized by a very short incubation period, two to three days, hence there is a very rapid dissemination of the poison; the attack is very sudden, the fever of short duration, and in infants and children not more than two or three successive elevations in temperature occur; the local inflammation is slight and out of proportion to the general symptoms; muscular pains and great prostration is more likely to be present than in other infections.

Some special signs have been given at various times which are said to be characteristic of the disease. The one which has been observed by several clinicians is the horseshoe-shaped inflammatory area of the fauces. In this the posterior margin of the soft palate and the anterior pillars of the fauces show a brick-red inflammatory discoloration.

On the other hand, the pneumococcal infection begins as a common "cold." The infection is at first at one point and the inflammation spreads up and down the respiratory tract. Fever is present usually in children and in general is proportionate to the area inflamed. Hence the eleva-

tion in temperature arises after one or two days of coryza or sore throat. One differential sign of special value is that the incubation in pneumococcic infection is much longer—five to ten days. After the persistence of the local symptoms for one or two days, the fever rises suddenly and lasting for a variable interval (one to three days) disappears by crisis. Recrudescencies and recurrences are common. Especially frequent is the occurrence of laryngitis and bronchitis. During the past winter most cases of bronchitis were caused by the pneumococcus (*diplococcus lanceolatus*). These cases of pneumococcic bronchitis serve as the principal disseminators of the germ and lead to the occurrence of pneumonia and broncho pneumonia.

The streptococcus infections vary so much in the clinical aspects that it is almost impossible to make a diagnostic syndrome. Thus in a simple

case of laryngitis with some mucopurulent expectoration without febrile symptoms it was found to be the only germ present. On the other hand, some very severe cases of tonsilitis and bronchitis show only this microorganism in the secretions.

Cases of glandular fever were rather common this winter. The diagnosis rests on the presence of numerous enlarged post-cervical lymph nodes and enlarged nodes along the sternoclido mastoid; also enlarged nodes in the axilla, groin and other regions. There is very high fever as a rule, which has repeated elevations, although it may end by crisis in two or three days. The liver and spleen are usually enlarged. Pain in the abdomen is a common symptom.

In conclusion, I wish to warn practitioners to be cautious in diagnosing grip when no microscopical examination of the secretions has been made.

SOME REMARKS ON BACTERIA IN THE DEAD BODY.

By R. B. H. GRADWOHL, M. D., Coroner's Physician, St. Louis, Mo.

In addressing a body of medical men upon a question of this kind, some may rightly ask, of what practical value is the search for bacteria in dead bodies? I might say in reply that at one time it was supposed that the bacteriological examination of the blood of dead bodies would throw considerable light on the etiology of disease; in fact, the first work in the direction of finding the now-acknowledged specific bacteria of specific infectious diseases was carried out with such dead material. To those of you who have followed the literature upon

this subject, it is known that there are many who still believe that valuable information as to etiology can be obtained from the blood of cadavers.

The vital point in the investigation of the blood of dead bodies from a bacteriological standpoint is to determine if possible just what role is played by the several bacteria that we find in the cadaver in causing death; secondly, in what percentage of these cases are the bacteria present, microorganisms, that enter the blood *sub finem vitæ* or *post mortem*. Consid-

erable skepticism has prevailed concerning the investigation of bacteria in dead bodies for the reason that many argue that during the last moments of life and immediately after death there is an invasion of the body by the different bacteria of decomposition, and that consequently any attempt to prove that a given bacteria found in the dead body is the cause of death would be necessarily futile. But recently a controversy has waxed warm between Simmonds, of Hamburg, and Canon, of Berlin. Simmonds, in an exhaustive thesis published in Virchow's *Archiv*, Band 175, Heft 3, gives the results of his investigations in a search for bacteria in the heart's blood of 1,200 cadavers. From these results he comes to the conclusion that considerable data can be obtained by a systematic search for bacteria in the blood of cadavers. His work consisted in the main in making cultures from the heart's blood of these subjects. He claims that the bacteria which he demonstrated in the heart's blood were not bacteria that had migrated from other parts of the body after death, but that they were the essential bacteria that could have been found free in the circulating blood during life. The autopsies in these cases were performed from twelve to thirty-six hours after death; in a few cases they were performed even later than that. Yet the investigator claimed that there was little if any post-mortem invasion of bacteria. In over one-half of the cases, bacteria of one kind or another were found. In 95 per cent. of the cases but one variety was found, and that the streptococcus. The cause of death in these cases in which the strepto-

coccus was found was: Scarlatina, 88 cases; diphtheria, 38; phthisis, 28; erysipelas, 25; phlegmonous cases and phlebitis, 29; pyemia, septicemia, malignant endocarditis, 38; and various purulent conditions, 62. Simmonds states that in chronic alcoholism, leucemia, pernicious anemia, diabetes, marasmus senilis, chronic diseases of the nervous system and of the circulatory apparatus, blood examinations were negative save where complications had supervened to cause death.

Somewhat of a damper is thrown upon this exhaustive undertaking by the publications of Canon, the latest of which appeared in the *Centralblatt fuer Allgemeine Pathologie und Pathologische Anatomie*, Band xv, No. 4, 1904. Canon claims that the work of Simmonds is faulty in that he used the heart's blood for his material instead of blood drawn from one of the peripheral veins, such as the median basilic. Canon states that parallel cultures taken at the same time from the peripheral vein and from the heart's blood in given cases will show wide differences—*i. e.*, that no bacteria will be found in the venous blood from the arm, and many bacteria will be found in the heart's blood. He claims that the bacteria which are found in cultures from the heart's blood in nearly all cases represent micro-organic migrations from nearby organs, principally from the lungs. The fact that Simmonds found the streptococcus so frequently in cases of lung tuberculosis in the heart's blood only, seems to strengthen Canon's contention that these tuberculous patients frequently harbor numerous areas of streptococci in

their broken-down lungs, and that they migrate during the agonal or post-mortal state in the nearby heart's chambers. Canon believes that reliable information can be obtained from bacteriological work on dead bodies, but not from cultures of the heart's blood. He declares that he has good reason to believe that not only bacteria of decomposition first begin their work in the heart, but that by reason of the heart's close proximity to the lungs, liver and abdominal organs, the bacteria which inhabit these locations will quickly and naturally drift to the heart *sub finem vitæ* or *post-mortem*, and thus obscure bacteriological investigations. A very good case illustrative of this point¹ is given: A man whose lower leg was crushed in an accident had his thigh amputated at the hip joint; he died of pyemia. Blood examination of the vein on the arm, before and after death, was negative. Autopsy twenty-four hours after death showed gangrene of part of the lung following infarct. Examination of the heart's blood gave numerous bacteria of decomposition and streptococci. These bacteria entered the heart from the lung, beyond doubt, as there were no free bacteria in the circulating blood during life. Eiselsberg² has demonstrated similar findings within ten minutes after death in cultures from the heart's blood.

Further support is given the view of Canon by the investigations of Achard and Phulpin³ who studied forty-nine cases; they used blood from the arm veins and blood obtained by puncture of the liver, also heart's blood, with bacteriological study of the liver and spleen at autopsy. In

eight cases no bacteria were found in the venous blood from the arm, while bacteria were always present in blood obtained by puncture of the liver. In six of these eight cases, the blood in the heart was sterile during the first ten hours after death; eighteen to twenty-four hours after death, the same bacteria were found in the heart's blood that were found in the blood aspirated from the liver (colon bacilli, staphylococci and bacteria of decomposition.) In other cases, they found in the first few hours after death the same bacteria in the heart's blood that were found in the blood from the arm; yet cultures from the heart a few hours later gave also bacteria of decomposition.

Prompted by the work of these investigators and by the results of Wurtz⁴, Beco⁵, Chvostek⁶, Hauser⁷ and Birsch-Hirschfeld⁸ upon animals, I undertook a series of cultures to determine just what bacteria are found in these dead bodies after death. My cases were those upon which I performed autopsies at the direction of the Coroner of this city, Dr. R. M. Funkhouser, by whose courtesy I beg to report my results. I believe that possibly more tangible information can be obtained from some of these cases than from the work of either Simmonds or Canon on account of the fact that I examined these bodies very soon after death. Owing to the laws in force in Germany, bodies must be held for a certain number of hours before an autopsy can be performed. Although Simmonds maintains that the keeping of his bodies in the cellar of the dead-house of the hospital in a cool place tended to prevent any decomposition, I maintain that the best

results in this line of work are to be obtained by getting into the body as soon after death as possible. Another advantage that goes with my cases is the fact that our bodies are kept in the admirably equipped cold-storage plant at the city morgue, which in my opinion is easily superior from a refrigerative standpoint to the "cool cellar" of the German dead-house, where ice is unknown. My results cover bacteriologic examinations of both the venous blood from the arm and the heart's blood from fifty cases. The blood was drawn from the median basilic vein in the manner of taking cultures from the living, plating in liquified agar and incubating at the ordinary temperature. The heart's blood was taken according to the method described by Schottmueller⁹: after opening the pericardium, part of the presenting surface of the right ventricle is sterilized by a hot knife-blade, a sterilized canula inserted into the ventricle and blood drawn up through a sterilized syringe attached thereto, several drops, from one to thirty, poured into tubes of liquified agar, agitated and then poured on sterile Petri dishes for incubation. I wish to state that autopsy was performed in some cases as soon after death as two hours.

The cause of death in my cases was as follows:

Cases 1-7.—Seven cases of gun-shot wound (3 of chest, 2 of abdomen, 2 of head.)

Case 8.—One case of fracture of frontal bone and hemorrhage into brain.

Cases 9, 10.—Two cases of fracture of the base of skull.

Cases 11-20.—Ten cases of valvular disease of the heart.

Cases 21-23.—Three cases of hemorrhage from rupture of aortic aneurysm.

Case 24.—One case of oxalic acid poisoning.

Case 25.—One case of pyemia following injury.

Cases 26-29.—Four cases of croupous pneumonia.

Case 30.—One case of peritonitis following stab-wound of intestines.

Case 31.—One case of compound fractures of the skull.

Case 32.—One case of carcinoma of breast and liver.

Cases 33, 34.—Two cases of purulent peritonitis following criminal abortion.

Cases 35, 36.—Two cases of traumatic pneumonia following fractures of ribs.

Case 37.—One case of gun-shot wound of thigh, amputation and septicemia.

Case 38.—One case of still-born child.

Cases 39-41.—Three cases of fatty degeneration of heart.

Case 42.—One case of morphine poisoning.

Case 43.—One case of cerebral meningitis.

Case 44.—One case of peritonitis following perforation of typhoid ulcer.

Cases 45-50.—Six cases of nephritis.

The seven cases of gun-shot wound resulted in almost instant death. Bacteria as follows were found:

Case.	Hours After Death of Autopsy.	Bacteria in Heart's Blood.	Bacteria in Arm-Vein.
1 Gun-shot	4	streptococci	negative
2 "	6	{ streptococci staphylococci	negative
3 "	2	negative	negative
4 "	4	negative	negative
5 "	8	streptococci	negative
6 "	10	{ proteus vulgaris	negative
		staphylococci	
7 "	3	{ streptococci	negative
		bacillus subtilis	
		B. pyocyaneus	
8 Frac. front bone.....	7	streptococci	negative
9 Frac. base skull.....	5	negative	negative
10 " " "	8	{ streptococci staphylococci	negative
		colon bacilli	
11 Valv. dis.....	3	negative	negative
12 " "	7½	staphylococci	negative
13 " "	9	{ colon bacilli B. mesentericus	negative
14 " "	6	{ streptococci colon bacilli	negative
		B. subtilis	
15 " "	6	proteus vulgaris	negative
16 " "	10	streptococci	
17 " "	3	negative	negative
18 " "	2½	staphylococci	negative
19 " "	8	colon bacillus	negative
20 " "	4	streptococci	negative
21 Aortic aneurysm.....	6	{ colon bacilli	negative
		staphylococci	
22 " "	7	{ streptococci	negative
		B. subtilis	
23 " "	3	negative	negative
24 Oxalic acid poison....	11	streptococci	negative
25 Pyemia	8	staphy. p. aureus	staphy. aure
26 Pneumonia	5	{ pneumococci	negative
		streptococci	
27 "	6	negative	negative
28 "	7	{ streptococci B. subtilis	negative
		staphylococci	
29 "	4½	streptococci	negative
30 Peritonitis	5	{ staphylococci	negative
		colon bacilli	

Case.	Hours After Death of Autopsy.	Bacteria in Heart's Blood.	Bacteria in Arm-Vein.
31 Cmpd. fracture skull..	2	streptococci.....	negative
32 Carcinoma.....	5	{ colon bacilli B. subtilis.....	negative
33 Peritonitis abortion...	3	{ streptococci..... staphylococci	streptococci
34 " " ...	7	{ colon bacilli .. staphylococci	negative
35 Traum. pneumonia....	5	negative.....	negative
36 " "	8	{ colon bacilli pneumococci	negative
37 Septicemia.....	4	streptococci.....	streptococci
38 Still-born	8	staphylococci	negative
39 Fatty heart.....	6	negative.....	negative
40 " "	3	streptococci.....	negative
41 " "	9	{ colon bacilli proteus vulgaris	negative
42 Morphine	5	negative.....	negative
43 Meningitis	4½	streptococcus.....	negative
44 Typhoid peritonitis....	3	colon bacilli.....	negative
45 Nephritis	10	{ staphylococci streptococci.....	negative
46 "	8	{ staphylococci..... B. subtilis colon bacilli	negative
47 "	7½	{ B. pyocyaneus..... streptococci	negative
48 "	9	{ streptococci..... sarcina lutea	negative
49 "	3	negative.....	negative
50 "	8	streptococci.....	negative

An analysis of this table will show that in these fifty cases, cultures from the heart's blood gave positive bacterial findings in thirty-nine cases, and negative in eleven cases. In other words, in 78 per cent. of the cases bacteria were found in the heart's blood, even though every evidence pointed to the fact that they were not present in the blood during life. It must be remembered that in several cases autopsy was performed as early

as two and three hours after death, and yet bacteria were present. On the contrary, negative findings were the rule in cultures from the vein of the arm except in a few cases where there was a history of general sepsis before death, and in such cases the same bacteria were found in this venous blood as were found in the pus from the site of infection. This constant negative finding in the blood from the median-basilic vein shows

that in this situation there is no post-mortem migration of bacteria. The almost constant finding of streptococci and colon bacilli in the heart's blood in these cases indicates that they migrated into the heart from the nearby organs, lungs, liver and intestinal canal during the last moments of life or immediately after death. Streptococci were found in the heart's blood in twenty-four cases—*i. e.*, in 48 per cent. of the cases. Consequently but little, if any, reliable information can be obtained from a post-mortem bacteriological examination of the heart's blood.

I believe that valuable information can be obtained from a bacteriological examination of the blood drawn from the median-basilic vein after death. For instance, Canon has re-

peatedly pointed out that in medico-legal cases the pathologist is at a loss to find a lesion which will account for death. All the vital organs appear normal. A bacteriological examination of the blood from the arm will show a streptococcus infection which has left no marks of identification on the vital organs examined with the naked eye.

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AN ANALYSIS OF LAST YEAR'S WORK IN THE MUNICIPAL DISPENSARY OF THE CITY OF ST. LOUIS.

BY HENRY J. SCHERCK, M. D., St. Louis, Missouri.
Chief Dispensary Physician.

Inasmuch as I am limited to twenty minutes in discussing the various work accomplished by the dispensary in the city of St. Louis, my remarks must of necessity be very brief, hence for the most part I will confine myself to figures and facts.

During the year a grand total of 41,474 patients were treated by the physicians connected with the dispensary service. Of this number 21,731 were medical cases, and 19,743 were surgical cases. It is interesting to note in this connection what were the most prevalent diseases and injuries encountered. Diseases of the respiratory apparatus claim first place.

There were over 4,000 cases of bronchitis, pneumonia and pleurisy. Fevers of various kinds were next in point of prevalence, there being over 3,000 cases handled.

Among some of the interesting conditions met with might be mentioned the following:

The large number of bites treated—*e. g.*, fifteen cat bites, three hundred and sixty-six dog bites, seventy-four insect bites, fourteen horse bites, eighteen rat bites and the bites inflicted by individuals on others, thirty-four. Where we have reason to suspect that the bites inflicted by dogs were produced by animals suf-

fering from rabies we have advised and practiced, where possible, the injection of the serum against rabies.

Four hundred and fifteen foreign bodies were removed from various parts of the anatomy of individuals applying for relief. It is remarkable how many various objects are utilized for this purpose, and what portions of the anatomy are used as receptacles for these foreign bodies. Among the surgical conditions, naturally the majority of the patients apply suffering from some form of wound, either incised, lacerated or punctured, the result of fights or accidents. No less than five hundred and thirty-one gunshot wounds were examined, treated and disposed of during the year, while there were 6,000 incised and lacerated wounds. The face and scalp was the seat of the location of most of these wounds. Naturally among the poorer and criminal classes we have been called upon to handle a very large number of drug habit cases. The number of morphine and cocaine fiends being very much larger than one would expect. This is due in a great measure to the facility with which anyone can procure these drugs from the various irresponsible drug stores situated in our downtown district. There were over one hundred of these who have applied for relief during the year. Inasmuch as the winter was very severe, frost-bites, some of them very severe, were quite frequent. No less than three hundred cases applied. We find that the local application of ichthyol gives as prompt relief as anything we have tried.

There were over six hundred cases of various skin diseases, eczemas be-

ing the most common form and usually secondary to pediculosis.

During the year two hundred and twenty-eight cases of smallpox were sent by the chief dispensary physician to quarantine. Of course, in locating this number many cases were examined which proved to be suffering from other diseases than variola. Of the two hundred and twenty-eight cases sent to quarantine suffering with variola, two hundred and twenty-seven recovered. Only one died. There were one hundred and eighty-eight white and forty colored, one hundred and fifty-six males and forty females. The disease was contracted within the city in one hundred and seventy-nine cases; forty-nine cases were imported here. Of the two hundred and twenty-eight cases one hundred and ninety-nine had never been vaccinated; twenty-one showed poor marks while only nine showed a fair mark.

These figures should convince the most skeptical of the value of vaccination. It was also noted on those who developed the disease, and who had marks of previous vaccination, that in no instance had the vaccination been done as recently as fifteen years, and the majority were twenty-five years old. It is surprising in the conduct of a large city dispensary to note the large number of cases that are picked up upon our thoroughfares and brought to us for observation to determine their mental responsibility. During the year there were six hundred and eighty-two cases brought to my attention by the police department. Of this number two-thirds proved to be insane and have been committed to the insane asylum.

It is noteworthy in this particular to call attention to the number of cases occurring during the months of March, April, May, June and July as compared to the rest of the year, there being about twice as many during these months. Whether the heat, or the combination of heat and alcohol is the cause of this condition I am not prepared to say, but it seems likely that it has some bearing on the condition.

Connected with the central dispensary we have what is termed our vaccine corps of physicians. These gentlemen have been directed to vaccinate wherever required. In this particular it might be of interest to call your attention to the system in vogue in regard to following up the cases of smallpox and the protection thrown around those who may have come in contact with a case. As soon as a case of smallpox is discovered, the complete history of the case is immediately gotten, the name, color, age, etc., together with the residence and length of time the patient has been in the city, and made a note of. The vaccinal history is carefully gone into, whether the patient has ever been vaccinated, or if he has been, whether he shows a poor, fair or good mark, and the length of time he claims has elapsed since vaccination was successfully performed. A note is also made of the time when the patient was first taken ill and the date when the eruption first appeared. The name, residence and employment and name of employer, and of each and every person who has come in contact with the patient, is carefully noted on what is termed a verification sheet. One of the vaccine physicians is then detailed

to visit each one of these exposures to inspect him and to vaccinate if necessary. A record is kept of all this and a card filed bearing the name of the individual exposed. From the 10th to the 15th day after exposure the vaccine physician revisits him and takes his temperature each day. If during the danger period he develops a temperature, he is closely watched, and upon the first evidence of any eruption is brought down to the isolation ward and from there sent to quarantine, if the disease develops. In this way we have been able to gather cases that probably otherwise would have escaped our attention.

It is interesting to note, too, that exposures that have been vaccinated within four or five days after exposure, have in the large majority of instances escaped the disease, and those that have been vaccinated between the 5th and the 8th day successfully, have shown a very much modified form of the disease, if it developed. Besides these vaccinations it is our custom to vaccinate every prisoner brought to the city jail. In this way we have vaccinated eight hundred and fifty-six prisoners. The tenements, mercantile establishments and hotels have also received our attention and a very large number of their employes have been vaccinated.

At the beginning of each school year we send a physician to the various public schools to inspect and vaccinate where necessary. Last year 6,936 school children were vaccinated and many more inspected. We have advocated the careful vaccination of the employes of the large factories, street car companies and other establishments employing large numbers

of men. This has been taken advantage of by most of these concerns with gratifying results. I am fully convinced that the small number of smallpox cases in our city is entirely due to the energetic manner in which this branch of the department is pushed.

There are connected with the various dispensaries about twenty-odd ambulances, which convey the sick and injured to either the dispensaries or hospitals. An innovation in the shape of ambulance surgeons has been adopted during the last year. These gentlemen accompany the ambulances on their trips when answering calls to surgical or medical emergencies. Much good has resulted from this, as quite a number of poison cases have been attended to on the spot and stomachs thoroughly washed out and antidotes given. Cases of hemorrhage have been controlled and fractures temporarily cared for, so that their ride has not at least injured the conditions in any way. Besides that, the antiseptic dressings have been applied to prevent any further

infection of wounds. This, I believe, is one of the best additions to the ambulance that could possibly be adopted.

During the year there were 12,678 different calls made by the ambulances. In doing this it was necessary for them to cover 50,000 miles of streets. There is no doubt that in the future automobile ambulances will take the place of our present method. The average number of calls made by the ambulances per month ranges between eight hundred and nine hundred and fifty, and does not seem to vary to any appreciable extent, the number being a trifle less in winter than during the summer months.

The foregoing rather disconnected statements of our work will, at least, give you an idea of the immense amount of work accomplished by the Municipal Dispensary Department. It will be a pleasure to demonstrate any of the branches of our department to the members of the Missouri State Medical Society, if they care to call on me at our Health Department.

HYPERACIDITY.

BY JOHN M. BELL, M. D., St. Joseph, Mo.

In all the domain of applied therapy there is no field requiring such great care in diagnosis and accuracy of procedure as that which is directed against pathologic conditions of the stomach. To get anything like results, one must know just what to give, and the best time to give it, and why it is given. Shotguns have no place in stomach therapeutics. Here,

as elsewhere, diagnosis determines much the brilliancy of results, but even before diagnosis comes a thorough, clear, close understanding of the physiology of digestion, a much closer one than the average physician gives the subject. The proposition is not merely that digestion is impaired, but which step of digestion is at fault. From a therapeutic standpoint, dis-

eases of the stomach may be divided clearly into three classes. First, those of hyperemia; second, those of anemia; third, organic diseases with accompanying anatomic changes. Nervous dyspepsias are not entitled to a distinct subdivision, since they array themselves under those of the first two groups. Group one, hyperemia, will include all those conditions in which the stomach is overdoing itself. From incessant irritation, be it nervous or from improper food, overeating, faulty mastication or use of stimulants (alcohol or condiments), an excess of blood is attracted to the organ. The glandular element is over-stimulated, an excess of gastric juice is present and peristalsis is exaggerated. Group two, anemia, includes conditions just the reverse, with glandular structure normal, but, from insufficient blood supply, inactive. It may be from nerve innervation, general or local anemia or general atonicity. Such conditions are characterized by a lack of gastric juice and insufficient peristalsis. Group three includes anatomic diseases, ulcer, stenosis, cancer, dilatation and such diseases which may exist as a terminal product of a long continued member of group one or two, or arise from a pathogenesis outside the stomach.

Hyperacidity, the subject today, represents typically group one, the most common of the series and the farthest reaching in sequellæ. If not checked, it terminates in glandular atrophy or develops a persistent ulcer. It is a prevalent condition, diagnosed as dyspepsia, usually treated in a way calculated to disgust the stomach and mortify the physician, because it is a disease in which the inevitable tonic,

strychnia, pepsin and H. C. L., is particularly contraindicated, and yet that is what it gets, and that is why it does not recover.

The condition may be summed up in a word—overstimulation—the immediate result of which is undue glandular activity. The oxyntic glands secrete too much H. C. L., peptic glands, pepsin, etc. It is common in this country because of our strenuous, restless life. A natural sequence incident to high-strung nervous tension. It is the dyspepsia of nervous people, partly because the stomach participates in the nervous exaltation of the body, but more so to the fact that such people masticate poorly. They bolt their food. It is common among gormandizers, those who consume much whiskey or highly seasoned food or too much rich food, existing as an early step in the genesis of chronic gastritis. The condition is characterized by gradual but persistently increasing discomfort after meals. As Butler puts it, "Into a state of health a sensation of epigastric uneasiness intrudes, deepening into pain, and shortly followed by nausea and acid vomiting, sometimes becoming bile stained." At first a mere uneasiness, one or two hours after meals, it develops into a burning pain, with belching, gaseous rumbling and pyrosis. Headache and vertigo are common. The pain is relieved by vomiting, by taking alkalis, magnesia or soda, or by taking animal food. The latter phenomenon is explained by the fact that animal albumen requires more H. C. L. for its conversion into albumose than does vegetable albumen, hence it utilizes the excess of acid. Loss of weight is not

common. On examination, a diffuse gastric tenderness is observed. Examination of gastric contents reveals an excess of H. C. L. and an absence of acetic, butyric or lactic acids. The absence of these organic acids is necessary to distinguish from impaired peristalsis, another form of dyspepsia also common, but differing widely in pathology and treatment. Hyperacidity may be intermittent, periodic or incessant. In well marked cases H. C. L. may be detected in the water brash eructations between meals as well as on a full stomach.

There is one definite method by which hyperacidity may be distinguished from other stomach diseases, accompanied with sour belching, namely, analysis of stomach contents. Nor is the use of stomach tube necessary. The vomited matter serves the purpose admirably. In hyperacidity the sour factor is H. C. L., the acidity of sour belching that comes from dilatation, stenosis and malignant diseases being lactic acid.

The diagnosis is misleading, because the tongue is usually clean and the appetite good. The recognition and correction of hypersecretion is of vital importance to the patient, since, if allowed to continue, gastric ulcer or chronic gastritis develops in a certain percentage of cases.

In the way of treatment, the best results are obtained by regarding the disease as one of the body in general and not purely a local one. Treatment must aim to calm high nervous tension to secure greater repose of the individual as well as of the stomach. Stimulating factors of the daily life must be eliminated, fewer hours of work, more for recreation. More sleep.

Alcohol and tobacco must be cut out. At the table the food must be bland, unirritating; all condiments are to be interdicted—pepper, mustard, horseradish, ginger, spices in general—even salt must be cut down to the lowest possible point. In fact, such cases do best by using no salt at all, except the chlorides, which naturally exist in food stuffs. While such a diet at first seems flat, the relief obtained by it is full compensation for the deprivation. Extremes in temperature are to be avoided, no iced drinks nor hot soups. Such cases recover best by realizing that they must eat only to live, the palate is not to be consulted. By such means—purely hygienic—mild cases will entirely recover with gastric equipoise and a healthy appetite. Severe cases demand other measures. Meals are to be taken with no fluid whatever—perfectly dry. This has the advantage of compelling mastication and diminishing the bulk of the stomach contents. Water is to be allowed an hour after meals. The diet to consist largely of proteids, milk, eggs and meat. This is preferable, because animal albumens appropriate a larger percentage of H. C. L. in being converted into peptones than do vegetable albumens. A carbohydrate diet is preferred by some authorities because of its soothing effect on the mucosa. An ideal measure is the administration of twenty grains of magnesium calcined or ten of soda bicarb. in hot water thirty minutes before the meal, to neutralize the excess of acid already secreted, then in fifteen minutes, which is still fifteen minutes before the meal, one-fourth grain of nitrate of silver and one-fourth grain of extract of belladonna, the silver to

allay hyperemia and the belladonna to have an inhibiting action on the excessive gland activity. This has another happy faculty, the excess of acid and the resulting hyperemia augments peristalsis to such a degree that the stomach contents are impelled onward before digestion is completed and before the secreted gastric juice has exhausted itself, leaving the stomach in a condition of unrest, with a sensation of hunger soon to follow. Such cases are always eating. The treatment above outlined

has the advantage of subduing the pathologic condition existing as well as tending to prevent its recurrence. Between times, alkaline waters may be taken at pleasure. Cathartics must be used for some time; the alkaline ones are preferred for obvious reasons. Exercise in the open air and daily cool bath are to be advocated. The condition tends to become chronic and persistent efforts must be kept up. The method outlined above has proved itself reliable in my hands.

DISCUSSION.

HOME AND SANITARIUM TREATMENT OF TUBERCULOSIS.

BY DR. WM. PORTER.

Dr. W. McNabb Miller, Columbia, Mo. :—I have considerable interest in this problem. I think Dr. Porter has struck the keynote in the problem of home treatment of tuberculosis, when he says that if the patient cannot be taken to a sanitarium the home should be turned into a sanitarium. If Mahomet cannot go to the mountain, the mountain must come to Mahomet.

The origin of the disease depends on two factors: The susceptibility of the patient and the possibility of infection. We can make him less susceptible and we can control the danger of infection. We read much of the benefits of the open air, sleeping on the porch, under the open sky, etc., but I think the moment the home is turned into a sanitarium, where the patient is made perfectly comfortable, the battle is half won. Let us bring into the room a sufficient quantity of fresh air and the problem is solved.

Of course, rest and nutrition must go with it.

Another thing is, it is said the air should be moist. I do not see why it should be moist. It was once my privilege to live for eleven years in the great basin of Salt Lake, and in that eleven years I never saw a case of tuberculosis develop there. This was due to the purity of the air and the great amount of ventilation in that community. They have houses constructed after the most modern fashion, with perfect ventilation.

Autopsies show that the disease is curable. Perhaps 95 per cent. of cases that come to the table will show some indication of tuberculosis. In almost all cases I find some point that will show evidence of the patient having had tuberculosis. This disease is not only preventable, but it is curable. Let us teach the people of our country these facts.

THERAPEUTICS OF TUBERCULOSIS.

BY DR. N. P. WOOD.

Dr. Robert M. Funkhouser, St. Louis: There is perhaps no disease that comes before the public that more urgently demands treatment than tuberculosis, and there is no treatment better than plenty of fresh air, plenty of nourishing food and occupation on the part of the patient. The essayist has treated the subject so admirably that I do not feel I can add anything to it. What he has said in reference to hemorrhage I would emphasize. I believe the pivotal point is in connection with narcosis, but some of the astringents are sometimes indicated, as ergot, tannic acid, etc. In the treatment of some severe cases that I saw in connection with my friend Dr. Bauduay,

I believe that the administration of the narcotic saved the life of the patients.

As to the serum treatment, I have lost faith in it. If we gain anything in this struggle it will be from prophylaxis and from anticipation. I endorse heartily what the essayist has said in regard to the time, which cannot be far distant, when tuberculosis will be a disease of the past, and as it decreases, I believe, we will at the same time have an increase in diseases of the kidney. I have seen some cases in which the diseases were combined, and the treatment is very difficult, for the treatment indicated in one condition is not beneficial in the other.

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EDITORIAL.

THE PRESIDENT'S ADDRESS.

Many letters have been received from members throughout the state requesting copies of the president's address. At the last annual meeting Dr. Williams introduced a motion to have printed 2,000 extra copies for distribution among non-members. The publishers have just delivered to the secretary the reprints, and to those making the request copies will

be promptly forwarded. This address should be specially valued for the Judicial Council in those districts where new societies are to be organized. Dr. Williams, of New York, editor of the *Druggist Circular*, writes congratulating our worthy ex-president, Dr. Wm. G. Moore, upon his position relative to patent medicines and requests copy of the address that he may publish in full.

AN OUNCE OF PREVENTION.

To combat the scourge of pneumonia in New York City, the board of health has planned to wage a thorough and far-reaching crusade. Its request for a special appropriation of \$10,000 was granted by the board of estimate and apportionment. This fund will be used to defray the expenses of a medical commission to be appointed by the board of health for the purpose of investigating the causes of acute respiratory diseases and to suggest the remedies to be applied for their prevention. The members of this commission are to be selected from the most eminent physicians and bacteriologists in the country, those whose experience and investigations have fitted them to be of particular service in the work.

The deaths from pneumonia from January 1 to July 1, 1904, numbered 5,498, which was 1,683 more than during the same period of 1903. The deaths from bronchial pneumonia during those months numbered 2,762 for 1904, an excess of 859 over 1903, and the deaths from acute bronchitis were 1,137, which was 228 more than for the same months of 1903.

QUOSQUE TANDEM ABUTERE PATIENTIA NOSTRA?

The resolutions which were passed by the Missouri State Medical Association at the annual meeting and forwarded to the governor and to the commissioners of the World's Fair in which the modest sum of one thousand dollars was asked for the purpose of acquainting the people through an exhibit with the causes and effects of diseases in man, has not as yet been

considered as worthy of an answer, although unofficially it is learned that the request has been "turned down."

In the *St. Louis Republic* of July 24th, we read the gratifying information that of the one million dollars appropriated by the legislature for the use of the Missouri World's Fair Commission there remains unexpended \$311,977.58. It would appear, therefore, that the depleted treasury of the commission did not furnish the strongest argument for refusing the request.

We regret greatly that Governor Dockery, who was a medical man and who should take a broad view of questions concerning science and scientific experimentation and the diffusion of useful medical and scientific knowledge among the people, did not see fit to avail himself of the opportunity which the commission presented to him and act as the representative of the medical profession in urging the very reasonable appropriation asked by the committee.

For the information of the members of the association, we wish to state that the money has been raised by private subscription among the physicians of the state. Missouri will not have as extensive an exhibit as our neighboring state, Illinois, but it will have such an exhibit as the doctors can make unaided by the state.

The practical lesson to learn from this failure to secure a thousand dollars out of the one million for medicine is that it will be necessary for each county society to read the resolutions passed in St. Louis to the candidates for the house and for the senate from the respective counties and to learn from them what attitude

they will assume in the general assembly towards matters relating to the public health and to scientific medicine.

In our next issue we will analyze the expenditures of the Missouri State Commission for the benefit of the six thousand physicians of Missouri.

NEWS ITEMS.

EXHIBIT OF MOSQUITOES AT THE ST. LOUIS FAIR.

Dr. Frederico Torralbas, a member of the Havana Supreme Board of Health, will exhibit a large number of mosquitoes, which he has brought from Cuba for the purpose of illustrating the theory of the transmission of the yellow fever germs. Dr. Torralbas will also erect a series of tents at St. Louis, provided with wire screens, the same as were used when the American and Cuban surgeons made a series of experiments to show that yellow fever germs can only be propagated by mosquitoes biting human beings. Men will be employed for a practical demonstration.—*Medical Record*.

POSTAL WAR ON CURE-ALLS.

Silence on the part of the newspapers greets the announcement that the Post-Office Department is going to help them exclude from their columns the advertisements of quack remedies. The postal authorities have decided to deny the use of the mails to concerns that sell fraudulent patent medicines, and will also exclude newspapers that advertise them. "All reputable newspapers will be glad to help in this work," says an official of the department; and the reputable newspapers reply—nothing. A careful search of our exchanges reveals only

three comments. The postal plan is briefly outlined as follows by the Washington correspondent of the *New York Tribune*:

"With the assistance of government scientists, the department seeks to bar from the use of the mails the host of patent medicine concerns and exploiters of proprietary medicines and nostrums which chemical analyses show are incapable of performing the wonderful cures claimed for them. On the list are preparations which purport to cure dipsomania, yet contain large percentages of alcohol, some of which are vended as harmless, but are found to be deleterious; others which are advertised as 'consumption cures,' but contain no recognized remedy for tuberculosis, and still others which are sold as restoratives of vitality, but which are entirely incapable of accomplishing any such result.

"Although this work is still in the initiatory stage, sufficient evidence has already been discovered to warrant the conclusion that many of the widely advertised patent remedies, 'favorite prescriptions,' vegetable compounds, kidney cures, stomach bitters, etc., are rank frauds, which cannot be of any benefit whatever, too often relying on alcohol to produce temporary exhilaration and likely to lead eventually to chronic alcoholism.

"Government control of the mails makes the Post-Office Department absolute master of the situation, with power to exclude from the use of the postal service every letter addressed to and every circular sent out by a concern which, in the opinion of the Postmaster-General, is conducting a fraudulent business, and to go even farther and exclude from passage through the mails every newspaper or other publication which, once a fraud order has been issued, persists in carrying the advertisement of the concern so excluded. No legal proceedings are necessary to accomplish these ends, and the entire burden of proof rests on the proprietor of the patent medicine or the concern to which the use of the public mails was forbidden. For that reason, it is believed, it will not prove difficult to drive out of business the individuals and institutions which seek to delude and defraud the public, while the department, after careful investigation of the subject, is convinced that the 'patent medicine fake' is a greater humbug than any of the 'get-rich-quick' concerns which have thus far been excluded from the use of the mails."

The department, we are told further, "has already investigated and decided nearly one hundred of the most flagrant of these cases."

The *Hartford Times* alone commends the plan heartily. It says:

"If this undertaking is carried out thoroughly and at the same time the government inquiry into frauds in foodstuffs is continued, and as much energy shown in stopping adulteration as in discovering its existence, a general reform will be set on foot,

the importance of which it is hardly possible to overestimate. And the consternation and wrath of that portion of the community which makes its living by preying on its fellow-citizens through such frauds will be in proportion to the actual service rendered to the rest of the people of the country.—*Literary Digest*.

NEW MEMBERS RECEIVED.

T. B. Turnbaugh, Bloomfield, Stoddard county; T. B. Wingo, Dexter, Stoddard county; D. R. Corbin, Bloomfield, Stoddard county; S. M. Evans, Bloomfield, Stoddard county; T. C. Allen, Bernie, Mo., Stoddard county; H. S. Winters, Acorn Ridge, Stoddard county; A. D. Hill, Dexter, Stoddard county; Elden Phillips, Bloomfield, Stoddard county; L. Burris, Puxico, Stoddard county; J. P. Brandon, Essex, Stoddard county; J. H. Bilbrey, Puxico, Stoddard county; W. C. Caldwell, Essex, Stoddard county; John Ashley, Bloomfield, Stoddard county; J. A. Tiller, Leora, Stoddard county; E. A. P. Briney, Bloomfield, Stoddard county; G. W. Vernon, Dexter, Stoddard county; J. D. Moulder, Puxico, Stoddard county; Harry La Rue, Dexter, Stoddard county; J. L. Slayden, Dexter, Stoddard county; A. R. A. Davis, Dexter, Stoddard county; C. L. Parkhurst, Houstonia, Pettis county; L. S. Mayfield, Puxico, Stoddard county; John Douglas, Dexter, Stoddard county; C. O. Shanks, Wayland, Clark county; F. W. Foster, East Lynne, Cass county; Berry, W. A., Unionville, Putnam county; Nulton, Ida May, Livonia, Putnam county; J. T. Coffee, Steelville, Crawford county; Walter S. Cox, Cuba, Craw-

ford county; Wm. J. Bamber, Wilson Mills, Crawford county; W. A. Metcalf, Steelville, Crawford county; Clarence Metlock, Steelville, Crawford county; A. H. Horn, Steelville, Crawford county; Horzog, C. C. A., Cuba, Crawford county; D. C. Jones, Poplar Bluff, 107 Main street, Butler county; J. W. Mason, Laclede, Linn county; C. W. Guss, Hannibal, Marion county; A. L. Shanks, Hannibal, Marion county; A. E. Lyle, Butler, Bates county; E. G. Zey, Butler, Bates county; F. Hulett Richards, Rich Hill, Bates county; Grosshart Ross, Rockville, Bates county; E. N. Chastain, Rich Hill, Bates county; V. J. Cumpton, Pleasant Gap, Bates county; G. A. Delamater, Rich Hill, Bates county; W. H. Knott, Hume, Bates county; H. W. Lancaster, Rich Hill, Bates county; H. A. Rhoades, Foster, Bates county; W. H. Allen, Rich Hill, Bates county; J. S. Amyx, Amsterdam, Bates county; C. B. McNarry, Rockville, Bates county.

Kansas City is to have a new, well-arranged, fire-proof city hospital, to cost \$225,000.

Dr. Leander F. Murray, of Holden, had his shoulder dislocated and scapula fractured last month in a runaway accident.

A case has recently been decided at Hamburg in which the central telephone girl sued a physician for injury to her head and ear from his persistently turning the crank in calling the central. This produced such a strong current that she was temporarily disabled. He was telephoning home in respect to an urgent case, but was

told his home wire was in use—"busy; call again"—although it was brought out at the suit that his telephone had not been used during that hour. He was condemned to a fine of \$7.50 or three days' imprisonment.

Dr. Bransford Lewis, while riding in his automobile June 25th, was severely injured by a collision with a team of brewery horses. The doctor is confined to his bed at his home, 4393 Lindell boulevard.

Dr. Luedking announces that it has become possible for the Washington University to erect a modern hospital building of one hundred beds at Jefferson and Lucas avenues, on the present site of the Polyclinic building.

An attendant at the University clinic at Lemberg recently sued Dr. Rydygier, son of Prof. L. Rydygier, for injury on account of permanent disability induced by experimenting with the Roentgen rays. He was awarded \$1,250 damages and a small lifelong pension.

"By the way," said the gentlemanly-looking person in the black broadcloth suit, "if you mention my name in connection with the accident, you may say that 'Dr. Swanken was called, and the fractured arm was suitably bandaged,' or something to that effect. Please spell the name correctly. Here's my card." "Thanks," said the reporter, looking at the card. "You are next door to Dr. Rybold, I believe. Are you acquainted with him?" "No, sir," replied Dr. Swanken, stiffly. "We do not recognize

Dr. Rybold as a member of the profession. He advertises—"Maryland Medical Journal."

9 A. M. to 1 P. M. daily. A general invitation to attend is extended to the medical profession.

The American Neurological Association meets in St. Louis, at the Planters' Hotel, instead of in the World's Fair grounds, as originally planned. The sessions will last from

A hospital with 2,000 beds, with a death rate of thirty a day and a birth-rate of 10,000 a year, is what Vienna boasts in its great Royal and Imperial State Krankenhaus, or infirmary.

COUNTY SOCIETY NOTES.

MISSISSIPPI COUNTY.

The Mississippi County Medical Society met on the fourth of July, and as there was no scientific programme after reading minutes of preceding meetings, election of officers was declared in order. The election resulted as follows: President, A. J. Martin, East Prairie, Mo.; Vice-President, A. E. Simpson, Charleston; Secretary, W. P. Howle, Charleston; Treasurer, C. A. Story, Diehlstadt.

Notwithstanding the excessive amount of rain, the doctors are all positively busy.

W. P. HOWLE, Reporter.

MARION COUNTY MEDICAL SOCIETY.

The Marion County Medical Society met in regular session July 1st, Dr. Richard Smith in the chair.

Dr. E. T. Hornback presented a case of sarcoma of the superior maxilla. The case elicited much interesting discussion. As the surrounding tissues were greatly involved in the new growth, the consensus of opinion was that operative interference had little hope of success, but that much

good might result from the use of the x-rays.

Dr. J. N. Baskett read a paper on puerperal eclampsia. He cited a case of eclampsia gravidarium occurring about the seventh month. The patient was suddenly seized with violent convulsions, which were frequently repeated. Venesection and the induction of labor were resorted to. After the withdrawal of twelve ounces of blood and the birth of the foetus the convulsions ceased and the patient made a good recovery.

Dr. Thomas Chowning read a paper on empyema, reporting a number of interesting cases. In outlining his method of treatment the doctor stated that the fundamental rule is to remove the pus as early as possible and to secure thorough drainage as long as the secretions persist. He believes it to be good preliminary practice to aspirate some hours before resection of the rib.

The attendance at the meeting was unusually good. Dr. B. J. Jandon, of Palmyra, and Dr. W. C. Guss, of Hannibal, were elected members of the society.

H. L. BLANKS, Reporter.

CHARITON COUNTY.

The Chariton County Medical Society met in regular session at the new office of Dr. J. Franklin Welch, Salisbury, June 30th, Dr. M. B. Austin presiding. Dr. C. A. Jennings and Dr. Wilford Baker were appointed reporters for the society.

Dr. I. H. P. Baker reported a case of eclampsia parturientium, the patient having had one very severe convulsion before the doctor was called. He immediately administered calomel gr. x, and gave hypodermically morphine sulphate gr. $\frac{1}{4}$, followed shortly by tincture veratrum viride Mxxx, likewise hypodermically given. The bag of waters was ruptured, and the escape of the liquor amnii followed by feeble, ineffectual pains. Forceps were applied and one child delivered. Normal delivery of the second child occurred thirty minutes later, the convulsion symptoms having ceased altogether after the birth of the first child. Nervous symptoms and fever continued for several days concomitant with an acute attack of leucocythemia. The patient is now improving slowly. The twins are doing nicely.

At the July meeting papers will be read by Drs. C. H. Temple and H. E. Kirkpatrick. The outlook for the up-building of the society is very encouraging.

C. A. JENNINGS, Secretary.

JASPER COUNTY.

The Jasper County Medical Society met in regular session in the Y. M. C. A. building at Joplin, Mo., at 8 P. M., June 20th. There was a good attendance. No papers were read, but

the entire evening was given to the presentation of subjects, at random, bearing on the welfare of the society and its members.

Dr. S. H. Miller reported two instances of persons practicing medicine in Joplin without a license. Jasper county, especially the Joplin district, is overrun with quacks, charlatans and fakirs. The osteopath, thanks to the lack of organization of the physicians in this state a few years ago, revels in this atmosphere.

D. S. H. Miller was appointed to investigate and report specific instances of violation of the law regulating the practice of medicine in this city.

The society decided to adjourn its regular meetings until the third Monday in September.

On motion of Dr. Lanyon, it was decided to hold a mid-summer meeting of all the physicians and their wives and families in Jasper county at Lake Side, at a date to be set later, in August. At this time a picnic will be given and some papers read on the welfare of the county society.

The lord of a shack in Lone Elm rushed into a Joplin physician's office recently and requested the doctor to repair to his domicile at once to attend his wife, who was in labor. The doctor, not knowing the visitor, asked who he was and something relative to remuneration for his services.

"You ain't one of them pay doctors, air you, doc?" The doctor admitted that he was. Then said the visitor: "I've lived in this county nine year, and never paid a cent to a doctor yit, and I don't intend to begin now. Good ev'nin."

CHAS. C. CUMMINGS, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

The Howard County Medical Society met at New Franklin, July 19th, Dr. V. Q. Bonham presiding. After the usual preliminary business, Dr. C. W. Watts, of Fayette, read a paper on "Surgical Treatment of Punctured Wounds." The paper met with general approval of the members present. Interesting cases were presented by Drs. Bonham and White.

The first number of the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION was presented to the society by the presiding officer. The able editor, Dr. C. M. Nicholson, was highly complimented on the general excellency of the publication. The Committee on Programme and Scientific Work reported that at the August meeting Dr. J. B. Fleet will read a paper on "Cholera Infantum," Dr. H. V. Cordry, a paper on "Cholera Morbus" and Dr. J. A. White, a paper on "Local Applications in Pneumonia."

The citizens of New Franklin entertained the members of the society most royally.

C. W. WATTS, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

The regular meeting Wednesday evening, June 1, was held at the Commercial Club rooms, and was designated a fraternal smoker. The minutes of the previous meeting were read and approved.

Upon motion the order of business was reversed on the program.

Committee on by-laws and constitu-

tion reported that the secretary of the state association had approved same, and a motion was made to adopt the report. Amendments were then made, changing the meeting night to the first and third Friday in each month, and designating the first meeting in December as the annual session. Carried.

The committee on place of meeting reported that the hall in King Hill building had been secured, beginning with June, at the rate of twenty dollars per quarter, including light, heat, janitor service and telephone. Upon motion the report was adopted and committee discharged.

The committee on fraternal smoker reported that arrangements had been made for a place of meeting and for refreshments, and a vote of thanks was extended to those contributing to the event, as follows:

The Commercial Club, Mr. Nete Ellis, Union Agency Co., White Rock Mineral Spring Co., St. Joseph Brewing Co., Anheuser Brewing Co., Mr. Schopflin and Mr. W. S. Kinnison. Upon motion ten dollars was appropriated to pay the expenses of lunch, and a warrant ordered drawn upon the treasurer.

Bills were allowed as follows: \$15.75 for rent to the School District of St. Joseph, \$2.50 to Lon Hardman for cards and stamps, and warrants ordered drawn upon the treasurer.

A communication was read from Dr. Nicholson, secretary of the State Society, asking that the society appoint an editor, whose duty it should be to report the proceedings of the Buchanan County Medical Society for the *State Medical Journal*. Upon

motion D. L. A. Todd was selected as editor.

Dr. Frederick Eliscu was duly elected to membership in the society. The application of Dr. Isaac Lechtman was read and referred to the board of censors.

Drs. Campbell, Sampson, Wallace and Kenney reported interesting cases.

Upon motion of Dr. Sampson, a vote of thanks was extended to the St. Louis Medical Society and to Dr. Nicholson, secretary of the State Association, for courtesies extended to the members of the Buchanan County Medical Society during the recent meeting in St. Louis. The following program was then presented:

A United Profession Chas. Wood Fassett
Our State Society—

1. The Medical Side..... J. H. Sampson
2. The Surgical Side..... L. A. Todd
3. Delegate's Report..... O. B. Campbell
4. Councillor's Report..... C. H. Wallace

At the conclusion of the regular program Dr. T. H. Doyle was called to the chair, who called for "flotsam and jetsam," and, under the benign and soporific influence of the fragrant Havana, the spirit of fraternal fellowship in the lighter vein prevailed during the remainder of the evening.

Upon motion, the society adjourned to the first Friday in September.

BUTLER COUNTY MEDICAL SOCIETY.

The Butler County Medical Society convened in regular session in Council Chamber, City Hall, at Poplar Bluff, July 19th, Dr. Greene presiding. The scientific programme was omitted owing to election of officers.

Dr. W. E. Highfill, of Neeleyville, was elected president for the ensuing year; Dr. I. W. Seybold, of Poplar Bluff, vice-president; Dr. J. J. Norwine, re-elected secretary, and Dr. B. C. Jones, re-elected treasurer.

Dr. Charles F. Greene, retiring president, lately having announced that he would change his location from Poplar Bluff, Mo., to Bakersfield, Ozark County, Mo., resolutions as follows were offered and unanimously passed:

"Resolved, That in the departure from our city of our retiring president, Dr. Chas. F. Greene, we lose one of the most progressive members of our society, and a citizen who has always enjoyed the full and hearty fellowship of our best people; therefore, be it further

Resolved, That we, the members of the Butler County Medical Society, seriously regret his move, but wish him and his most excellent family success and God's blessing abundantly bestowed."

On motion of Dr. Norwine the members retired, after adjournment, to enjoy luncheon in honor of Dr. Greene.

Desperately hot weather is causing profound malarial complications, otherwise our people are enjoying fair health, as very little contagious disease is present.

Your writer had the pleasure of visiting Bloomfield, Mo., the county seat of Stoddard County, a few days ago and organized the largest and best medical society in Southeast Missouri. Twenty-two earnest and up-to-date physicians of that county marched into the court-house and signed their names, producing the

necessary "root of all evil" to support the County Society for one year, including the home expenses. It affords a councillor much pleasure to organize nine-tenths of the medical men in a county in one day; it speaks volumes for the intelligence of any county or district.

J. J. NORWINE, Reporter.

STODDARD COUNTY.

The Stoddard County Medical Society was organized at Bloomfield, June 22d, under direction of Dr. J. J. Norwine, Councillor for District number ten. Officers were elected as follows: T. B. Turnbaugh, Bloomfield, President; T. B. Wings, Dexter, Vice-President; D. R. Corbin, Bloomfield, Secretary; S. N. Evans, Bloomfield, Treasurer; T. C. Allen, Bernie, Reporter.

Regular meetings are to be held the first Wednesday in March, June, September and December.

The society met at Bloomfield, July 20th, Dr. T. B. Turnbaugh presiding. A very interesting paper on "Summer Diarrhea and Dysentery" was read by Dr. Hill, of Dexter. Dr. Hill laid special stress on the treatment of the conditions by antiseptics rather than astringents. His plan is to thoroughly clean out the gastric intestinal tract, and then give intestinal antiseptics by both mouth and rectum. Sulphocarbolate of zinc, he thinks, the best antiseptic here, while bismuth, listerine, paregoric, glycerine and cinnamon are prescribed when astringents are indicated. The use of epsom salts is advised against.

Discussion of the paper was general as follows:

Dr. Cointers:—I think some cases are injured by the use of purgatives, and if I give a purgative I avoid calomel.

Dr. Turnbaugh:—Cases showing distended abdomen and offensive dejections, particularly call for a purgative. In dysentery, epsom salts is the best purgative.

Dr. Vernon:—I favor rigid antiseptics, but I wish to emphasize the fact that it is folly to follow an antiseptic course of treatment and continue to put septic food into the stomach. I stop all feeding for a day or two until the bowel is clear. Ipecac is sometimes a good purgative, especially if the stomach is irritated. I often stimulate some vicarious action to rest the affected organ.

Dr. Evans:—I do not use purgatives unless I see the case early, and I use astringents sparingly.

Dr. Allen:—I think summer diarrheas usually result from disordered intestinal secretions coupled with fermentation of ingesta, especially milk, hence I give callolactose to stimulate secretion, followed by antiseptic treatment, rendering astringents rarely necessary. If my case shows periodicity, which it usually does, I give quinine. If there is tenesmus and the stools show blood, I find a suppository of opium, tannin, lead acetate and hydrastis the best means of correcting the trouble, as it is usually in the lower eight inches of the bowel. Where the child is old enough I advise the use of foods containing salt and fat.

Dr. Wings:—My observation is that in 90 per cent. of the cases the blood which so alarms mothers comes from

the anus, as a result of the rupture of small congested veins.

Dr. Caldwell presented a case of a

girl eleven years old with normal growth of the matrix of the great toe.

T. C. ALLEN, Reporter.

BIOGRAPHICAL SKETCHES.



ÆSCULAPIUS.

ÆSCULAPIUS, in the heathen mythology, the god of medicine, was the son of Apollo and the nymph Coronis. He was educated by the centaur Chiron, who taught him the art of healing; and his skill enabled him to cure the most desperate diseases. But Jupiter, enraged at his restoring to life Hippolytus, who had been torn in pieces by his own horses, killed him with a thunderbolt. At Epidaurus, Æsculapius' statue was of gold and ivory, with a beard, a knotty stick in one hand and the other entwined with a serpent; the figure was seated on a throne of the

same materials as the statue. The Romans crowned him with laurel, to represent his descent from Apollo; and the Phliasians represented him as beardless. The cock, raven, and the goat were sacred to this deity. In many places votive tablets were hung up, showing the names of those cured and the diseases of which they were healed by his assistance.



HIPPOCRATES.

HIPPOCRATES, termed the "Father of Medicine," was born in Cos, in 460 B. C. He was a member of the family of the Asclepiadæ, and was be-

lieved to be either the nineteenth or seventeenth in direct descent from *Æsculapius*. It is also claimed for him that he was descended from *Hercules* through his mother, *Phaenarete*. He studied medicine under *Heraclides*, his father, and *Herodicus*, of *Selymbria*; in philosophy, *Gorgias*, of *Leontini*, and *Democritus*, of *Abdera*, were his masters. His earlier studies were prosecuted in the famous *Asclepion* of *Cos*, and probably also at *Cnidos*. He traveled extensively and taught and practiced his profession at *Athens*. He died at *Larissa*, in *Thessaly*, his age being

one hundred and nine. The incidents of his life are shrouded by uncertain traditions, which naturally sprang up in the absence of any authentic record; the earliest biography was by one of the *Sorani*. He is referred to by *Plato* as an eminent medical authority, and his opinion is also quoted by *Aristotle*. The veneration in which he was held by the *Athenians* serves to dissipate the calumnies which have been thrown on his character by *Andreas*, and the whole tone of his writings bespeaks a man of the highest integrity and purest morality.

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VOLUME I.

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ORIGINAL ARTICLES.

CATARRHAL APPENDICITIS.

BY PAUL Y. TUPPER, M. D.,

Professor of Applied Anatomy and Operative Surgery, Medical Department Washington University, St. Louis.

The term "catarrhal," as applied to the most common form of appendicitis, is misleading. It tells the truth but not the whole truth. However, I do not believe that any one word can be found that will as clearly describe this pathological condition as do the simple terms suppurative, perforative and gangrenous as applied to other diseased conditions of the vermiform appendix. The term "endo-appendicitis," as used by Douglas, has at least the negative advantage of being non-committal pathologically. It aims to confine within certain bounds the extent of this pathological process rather than to mark out definitely the structures involved and define the exact character of the involvement.

Accepting the term catarrhal as ordinarily used, it is not appropriate when applied to the form of appendicitis under discussion. Here, not only the epithelial lining is involved in the pathological process, but markedly

the underlying lymphoid structures with which the lymphatics are richly endowed. Orth first demonstrated the existence of lymphatics in the submucosa of the appendix of the rabbit. Later, Morris not only proved their presence in the structure of the human appendix, but clearly demonstrated the promptness of their involvement in lesions of epithelium. The term endo-appendicitis, then, in distinction to the so-called interstitial or parietal variety, seems to be more fitting than the classification catarrhal appendicitis ordinarily used.

The disease is admittedly infective-microbic in character, but many and varied causes operate to excite the development of it. The bacillus coli communis, ordinarily innocuous in the intestine, becomes actively and perniciously aggressive under influences which depreciate the local tone of the appendix, causing an infection which is distributed to a varied extent

through the lymphatics. Welsh, Clado, Fowler, Robb and others have repeatedly demonstrated the occurrence of this bacillus in pure culture in cases of exudative appendicitis. Some believe the infection to be a mixed one and argue the presence of both streptococci and staphylococci. Welsh maintains that the infection is due to the compound influence of the bacterium coli and streptococcus—insisting that the failure to discover the streptococcus does not necessarily prove its absence.

The extent and virulence of the infection necessarily determine the gravity of the lesion. The involvement may be limited to the mucous membrane and the underlying lymphoid tissue, causing infection and tumefaction of the mucosa and an exudation into the lumen of the appendix of epithelium and bacteria-laden mucus. The presence of this accumulation if for any cause the appendix cannot expel it by its inherent contractility, gives rise to the well-known appendiceal colic so frequent in the early stages of the attack. The stenosis preventing an easy escape of the appendiceal contents may be occasioned by a pathological thickening of the cecal mucosa in the neighborhood of the valve of Gerlach, or possibly by the constriction of the lumen of the tube near its cecal attachment, the result of ulceration in a former inflammatory attack. This constriction must not be confounded with a physiological obliteration of the lumen of the appendix. Woolsey states that in about 25 per cent. of cases the lumen is partially and often completely obliterated, beginning at the distal end. It is a physiological and

not a pathological process. Only 4 per cent. of this obliteration is found in the first ten years of life, while it is present in over 50 per cent. of cases at sixty years. I have seen appendices exhibited for occlusions thought to be pathological, but to my mind they suggested simply this now well recognized physiological obliteration. The outery of the appendix is because it is not able to disgorge its contents, not because of the entrance into its lumen of a foreign body. We know too well now that the foreign body so often found in the appendix, and formerly thought to have made its way from the cecum, is simply a combination of inspissated mucus, feces, epithelium, etc., which has formed in the appendix but which it has been unable to expel. Under favorable circumstances the slight inflammatory action subsides or the appendix becomes tolerant of the foreign body and the immediate attack is at an end. Generally, however, lesions ensue that result in constrictions, irritable foci and from which subsequent attacks originate. With each attack the resistance of the tissues is lowered and consequently recurrences are as a rule more grave in their outlook.

Many and various factors enter into the exciting of an attack of appendicitis, the most common being habitual constipation, trauma, angling of the appendix from cecal traction or pressure, floating kidney, right ovarian inflammation, etc. Being dependent from that portion of the intestine in which inspissation of the feces first takes place, the appendix is, because of this position, liable to fecal lodgement and consequent infection. Byron Robinson's opinion that

the ilio-psoas muscle by causing unrest of the superimposed appendix predisposes to appendiceal inflammation is, I think, open to criticism. The normal appendix from its position, mesenteric attachment and inherent mobility should not be affected by the normal movement of adjacent muscles and viscera. It is not a fixed but essentially a movable organ. Moreover, the movement of the ilio-psoas is peculiarly restricted and kept in bounds by the unyielding iliac fascia. It is not plausible then that it can by its contractions play at "battledore and shuttlecock" with the appendix to the extent of crippling it.

Within the first twenty-four hours of the onset of an attack of acute appendicitis the pain usually becomes localized in the right iliac fossa, the normal site of the appendix. At first, however, the location of the pain is either illy defined, or not infrequently referred specifically to the epigastric region. The probable explanation of this is the primary irritation of the superior mesenteric plexus. In the very young, and occasionally in adults, because of an undescended testicle, the local evidences of an appendicitis are found as high up as the right hypochondriac region and should not be misleading. I think there is as yet no record of a case of appendicitis on the left side, but such is possible in a case of situs inversus.

The diagnosis of an acute appendi-

citis is ordinarily not difficult—the history of the attack and its symptomatology leaving us but little ground for doubt. What to do for the case, however, or what not to do, is often a matter that taxes our judgment to the utmost. Errors of omission as well as those of commission are apt to be made. To do what our best judgment dictates often calls for an exhibition of genuine moral courage. My opinion is that it is more than exceptional when a case of appendicitis demands operative interference within the first few days of its onset. Selected statistics show that 85 per cent. of all cases, well treated, call for no surgical procedure until after the acute attack is past. The remaining are the few cases where perforation takes place rapidly, and even in these a waiting on nature's limitation is often far safer than the hasty and generally harmful attack of an overzealous operator upon the already surprised and insulted peritoneal cavity.

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SUPPURATIVE APPENDICITIS.

BY JACOB GEIGER, M. D., St. Joseph, Mo.,

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 Professor of Principles and Practice of Surgery and Clinical Surgery, Ensworth
 Medical College.

The vermiform appendix is an anatomic relic; it possesses the same anatomic structure as the intestine. Its mucous membrane is richly supplied by lymphoid tissue. This would account for the greater frequency of the disease in the young, in whom this tissue is most abundant.

Its cæcal orifice is guarded by a fold of mucous membrane, the valve of Gerlach. Under normal conditions the mucous secretion finds its way easily into the intestines, and the valve serves to prevent the entrance of any considerable amount of intestinal matter into the appendix. The normal mucus of the appendix contains the colon bacillus, occasionally staphylococci, streptococci, and perhaps other organisms. If, from any other cause, the mucus is retained, its chemical elements become changed, disturbances of circulation and nutrition follow, and the organism becomes active and pathogenetic.

First, only the toxins from these organisms may pass through the walls of the appendix and set up a simple condition; later the germs themselves may escape through the softened or abraded mucous membrane, spread to other coats, and cause a local or wide-spread peritonitis.

If staphylococcus is the only or dominant germ and the blood supply fairly good, the process will be slow, and a simple adhesive and localized inflammation result, thus allowing sufficient time for the advancing ex-

udate to organize, gluing beforehand coils of bowels and omentum together, forming a barrier, shutting off the primary pathology from the general peritoneal cavity, producing a unilocular or multilocular abscess, which may contain foul pus, faecal concretions or a sloughing appendix, or the appendix may form part of the abscess wall.

In nearly every variety, if the appendix is retrocolic or retrocæcal or behind the peritoneum, only a local or circumscribed abscess results.

Again, in other instances, if the streptococcus or colon bacillus is very active, infection virulent and resistance low, the appendix becomes ulcerated or gangrenous, speedy perforation follows, leading to a more diffuse peritonitis, which may prove fatal in from twenty-four to forty-eight hours.

Occasionally a circumscribed abscess may become diffuse, bursting into the general peritoneal cavity. The symptoms in such cases very much resemble those of acute intestinal obstruction: severe colicky pains; early, copious and persistent vomiting; the abdomen becomes tympanitic and distended, the abdominal wall hard and rigid; the patient becomes anxious, depressed, and frequently passes into collapse.

Suppurative appendicitis is indicated by increasing tenderness and swelling in the right ileo-cæcal fossa, the parietes become œdematous and

infiltrated, and over the most prominent part of the swelling the percussion note becomes less and less resonant, and finally flat or dull, except when the abscess is post-fæcal or post-colic—then a tympanitic area is always present.

The temperature sometimes falls, but not to normal; the pulse is usually hard and rigid; the pain and tension may increase or diminish; rigors and sweating, foul breath, dry tongue, slight jaundice, rapid emaciation and other signs of sepsis; leucocytes may rise to 16000, 18000 or 20000.

In a majority of cases, in a week or ten days from the onset all the symptoms become milder, and the patient feels decidedly better.

In a few cases, however, the patient becomes more or less prostrated, does not rally, the inflammation spreads and assumes a more diffuse type, gas accumulates, bowels become paralyzed, and patient dies from sepsis or exhaustion. The abscess may rupture into the general peritoneal cavity, or into a bowel or the bladder.

The ideal treatment of all appendicitis would be to operate in all cases which are going to suppurate, perforate or become gangrenous, and treat the catarrhal form medically.

Unfortunately, we never know with

any degree of certainty what course the case will take. The expectant plan of treatment is always dangerous; we never know what will happen. All cases situated so they can have competent surgical treatment, and in which there are no contraindications, the appendix should be removed within twenty-four hours after the beginning of the attack.

If the case is not seen until several days after the beginning of the attack, and the symptoms do not indicate an advancing peritonitis and sepsis, it is best to wait until recovery before operating.

If suppuration or abscess is diagnosed or reasonably suspected, we should operate at once, taking care not to invade the general peritoneal cavity. It is not good surgery to wait until the abscess fluctuates or points; there is danger of the abscess bursting into the general peritoneal cavity.

In operating, great care should be taken to open where it can be reached most superficially. If the appendix is found in the abscess cavity, remove it; otherwise not. Do not irrigate, but sponge out the cavity with moist gauze, drain with gauze or soft rubber tube, apply a moist dressing, and re-dress according to the necessities of the case.

PERFORATIVE APPENDICITIS.

By HARVEY G. MUDD, M. D.,

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Upon being invited by your committee to present a paper on "Perforative Appendicitis," I at once felt

myself confronted with the difficulty of preparing a paper on this variety of this most interesting and widely

discussed disease, without trespassing considerably on the territory of the gentlemen invited to write on the other divisions of this subject.

However, others may have been likewise embarrassed and this may make it easier to pardon any such transgression on my part.

It seems hard to estimate at all accurately the proportion of cases of appendicitis in which perforation occurs. However, a rough estimate, based on cases received in two large hospitals and reported by two widely known surgeons, Deaver¹ and Ochsner², shows that about 23 per cent. of *all cases* of appendicitis are perforative, and about 35 per cent. of *all acute cases* perforate. This percentage is probably higher than the facts warrant; for it is certain that many patients recover from slight attacks which go unrecognized as appendicitis. Nearly all cases of so-called fulminating appendicitis are perforative; hence the majority of the gravest cases are found in this subdivision. The clinical picture of acute, perforative appendicitis is striking. The patient oftentimes has a feeling of something giving way, then follows the excruciating pain and collapse. There is a subjective sense of extreme illness, it may be of impending death. The body surface becomes cold and clammy, the pulse frequent and feeble. There is muscular relaxation, the skin is pale and covered with sweat; temperature in axilla or by mouth may be, at this time, only slightly elevated, or even subnormal. Temperature taken in the rectum shows marked elevation; there is usually marked restlessness. The abdominal wall becomes rigid and board-

like or balloons out (intestinal paresis) auscultation shows absence of peristalsis. In these desperate cases perforation and extravasation are usually coincident with the onset of the severe manifestations. Prognosis must of necessity be very guarded and treatment must, to give best prospect of succor, be prompt.

In the majority of perforative cases, fortunately, the development of the case is by no means so rapid and the symptoms presented during the first day or two of the disease not so grave.

Perforation occurs when protective barriers have been thrown out and the general peritoneal cavity shut off and guarded by more or less firm adhesions.

The primary cause of appendicitis is certainly an obstruction to the emptying of appendiceal contents into the colon. It is well known that there are always present in the appendix abundant micro-organisms ever ready to attack tissues in a condition favoring infection. It will be admitted, also, that there is always a possibility of entrance of fecal matter into the appendix.

A recent article by Van Zwalenburg³ on "Obstruction and Consequent Distention the Cause of Appendicitis," calls especial attention to the important role played by obstruction and distention in producing mechanical pressure on the blood vessels supplying the organ and the consequent interference with the circulation in the part. His deductions from cases in practice, and from experiments on dogs, seems to me most logical; and his explanation of the various phenomena of appendicitis the best yet offered. As to the form of

obstruction in the appendix; irregular development of the appendix with a narrowing of the lumen at some point; most often at or near the attachment to the cecum; thickening of the mucous membrane; bends or kinks in the appendix; short mesentery, are recognized causes of obstruction. Then in most cases of perforative appendicitis foreign bodies or concretions are found. It has been clearly shown that never an appendix was found which showed evidence of inflammation, past or present, which did not present a constriction in some part of the lumen. A concretion is, however, not essential to the occurrence of perforation. Any fecal mass may become so firmly packed into or against a constriction as to occlude for a time its lumen. This mass may give way before the process ends in perforation. Putrefactive changes may so soften the mass that it will pass before the damage reaches the stage of perforation. But the constriction may hold the mass long enough and the distention of the distal portion of the appendix may be so rapid as to produce pressure and consequent stasis of the circulation sufficient to end in localized gangrene and perforation.

On the tightness of the constriction and the nature of the obstructing mass must depend in great measure the degree of obstruction to the emptying of the appendix into the cecum. Given a constriction, and in the distal portion of the appendix an occluding mass which is unable to pass, and conditions are ripe for a perforation. As is so clearly pointed out in Van Zwahlenburg's article, such a condition quickly brings about an

effusion into the appendix; this in turn further distends this organ, thus increasing the compression of the capillaries and veins against the fibromuscular walls, in whole or part occluding them. Finally, when the pressure in the arteries and the intraperitoneal pressure is equal, there must result complete stasis in the capillaries and veins. The tissues thus deprived of their life fluid, the blood, the infective micro-organisms have full scope for their activity; result, a gangrenous or ulcerative process at once established and perforation occurring very shortly. The fact that constriction is always found and a concretion so very often, makes it appear entirely reasonable that this explanation holds good for most, if not all, cases of perforative appendicitis.

Perforation does not often occur with the first attack; usually only after recurrent trouble. If the history be carefully and fully studied there will nearly always be record of antecedent disturbance referable to the appendix. Every surgeon of large experience knows how often cases which have for a long time had more or less pain and tenderness, not necessarily constant, but recurring—on removal of the organ show present one or more fecal concretions in the appendix. Such cases are in constant danger—perforation is, perhaps, imminent. Such foreign bodies or concretions may later be forced past the constriction into the cecum and disappear. As to the frequency of concretions, Van Zwahlenburg calls attention to the collection by Talamon of 760 cases of perforative appendicitis in which 450 foreign bodies or concretions were found—nearly two-thirds

of the cases—and quotes Hartley: “Is it unreasonable to assume that the other one-third had escaped into the colon after temporarily obstructing the lumen?”

Many cases of so-called catarrhal appendicitis, or cases so diagnosticated, certainly present the conditions which favor the occurrence at any time of a perforative attack. Also, many cases which pass through attacks which are supposed to be catarrhal have suffered perforation and have remaining conditions, the dangers of which it is hard to estimate. It fell to my lot to operate on three cases within a week illustrating these features; in two of these cases the patients suffered from recurrent attacks, and came for interval operation. In both cases extensive adhesions were found, and at the site of obstruction there was found a perforation and a small quantity of inspissated pus. In the third case the boy had been examined by two excellent practitioners, and both told him that he suffered from catarrhal appendicitis. After careful examination I concurred in this diagnosis, and told the patient and his parents that the case seemed so mild that we could not urge operation. However, I pointed out the possible dangers of an appendix apparently so slightly diseased and the fact that it was impossible to know the exact condition without operation. On this statement operation was accepted, and again extensive adhesions with a kinked appendix, perforated, and showing a small amount of inspissated pus at the site of perforation, were found.

In looking over the literature of this subject I was struck with two

cases reported by Willy Meyer.⁴ One case of operation in the interval; the patient apparently in perfect health; six large fecal concretions were found in the appendix; one had produced pressure necrosis, and part of the wall was ready to break,

In the second, also an interval case, in the tip of the appendix an ulcer was found, the base of which was separated from the free peritoneal cavity by a very thin lining of serous membrane.

These cases serve to illustrate and emphasize the great dangers of perforation to which some of the *apparently* mild cases are exposed.

Inflammation of the different coats of the appendix proceeds from within outward, *i. e.*, from mucous membrane to peritoneum. The area of ulceration is largest in the mucous coat. When conditions are present which may proceed to perforation the initial pain is probably due to distension of the appendix, and the severe colicky pains are due to contractions of the muscular coat in its effort to expel the contents. When the gangrenous process is established, pain may cease for the time being, and the next severe pain be notice of the ulceration of the peritoneal coat and perforation with consequent extravasation of the contents. If the process be not too rapid, as the ulceration deepens and involves the peritoneal coat, lymph thrown out on the free surface of the serous membrane of adjacent coils of intestine becomes adherent to the appendix, and thus nature provides a barrier against the extravasation of the appendiceal contents into the general peritoneal cavity. Should the necrotic process caus-

ing the perforation be so rapid that it gives insufficient time for the building up of this protective barrier we have to deal with a fulminating case of appendicitis, one of the very grave type. With the slower process we have a localized abscess with which to deal. Pus having formed, the collection burrows in the direction of least resistance. In this connection the position of the appendix and the location of the perforation have an important bearing. If an appendix hanging over the brim of the pelvis and pointing downward into the pelvis have a perforation at the tip, the condition is more favorable than if the perforation occurs near the proximal end. In the latter case the chances of general peritoneal infection are increased. An appendix which lies near the anterior abdominal wall, to the median line of the cecum, and perforates in its distal portion, gives very great danger of general peritoneal involvement. An appendix lying to the outer side of the cecum, the distal end being found in the neighborhood of the liver and perforating in this region, adds much to the danger, because the lymphatics in this part are very active, and there is great danger of spread of the infection, and the formation of secondary collections in the thorax or subphrenic space; infection of the liver and kidney. Perforation of an appendix placed behind the cecum or between the layers of the meso-cecum carries with it especially great dangers of retro-peritoneal infection, lymphadenitis and phlebitis. There is also danger of gangrene of the bowel, due to disturbance of the circulation of the gut by the burrowing process, by

pressure necrosis or septic thrombosis of mesenteric vessels.

Did we always find the classic symptoms, the diagnosis of perforative appendicitis would be comparatively easy. This, however, is far from being the case. We must not, cannot, depend too much on finding so called classic symptoms. No condition may be more difficult to recognize, of having its seriousness more completely masked, than that which is present soon after the rupture of an appendix, and when general peritoneal infection has just occurred. This condition is one of the most variable, complicated and treacherous in its manifestations to be found in the entire range of medicine and surgery.

The temperature is no true guide to the diagnosis. However, frequently we find a marked discrepancy between the temperature taken by mouth or in the axilla and the temperature taken high in the rectum. The temperature by rectum will often be found varying from two to four degrees from that taken by mouth or axilla. Rectal temperature may be perhaps 102 or 103 when temperature in axilla or by mouth is normal or below. Such a difference is a strong indication of peritonitis.

The pulse is more reliable as a guide in a general way; ordinarily being rapid and the rate increasing as time goes on; but I recall a case in which operation revealed a perforated appendix with concretion, abscess, and a large quantity of pus in the pelvis, in which the temperature never rose above 99.6 and pulse was never more than 80. *Pain*, while a valuable symptom, is frequently misleading. It may be located in any part.

Sense of localization is absent from the viscera and pain due to visceral disease may be referred not to the actual seat of the disease, but to an area in the body wall supplied by sensory nerves which have an intimate relationship in the cord with the sympathetic nerves supplying the affected viscera. Pain at the beginning of a perforated attack, severe, spasmodic, colicky, probably due to the effort on the part of the appendix to expel its contents, often disappears for a time when the gangrenous process is established, but recurs with renewed violence when perforation and extravasation occur.

When the appendix is located in the pelvis or pelvic peritonitis exists, urination increases the pain, especially at the end of the act; probably because the contracting bladder drags upon the inflamed parts. Muscular rigidity, although usual, is not always present. Respirations should be carefully watched. Ordinarily the abdominal muscles take but small part, respiration is shallow, thoracic.

Auscultation of the abdomen will usually show absence of peristalsis. An effusion in the peritoneal cavity can sometimes be made out. Rectal touch will frequently reveal an exquisite tenderness due to beginning peritonitis. The blood count may give valuable indications. To be of most value it should be made frequently. The demonstration of a relative leucocytosis is an indication of more value than a showing of an absolute leucocytosis. An increase in the proportion of the polymorpho-nuclear cells, which is normally 70 per cent., 75 per cent. to a proportion of 85 per cent., 95 per cent. indicates a grave

condition, with the presence of pus. Leucocytosis may be absent in perforative cases with virulent infection; when the patients are too feeble to respond to the action of the toxæmia. Most writers agree that classical symptoms, sudden and severe pain in the right iliac fossa, with localized tenderness and vomiting are much less constant in children than adults. In children localized tenderness seems a more reliable sign than the localized pain. Pressure over the McBurney point will usually cause the sufferer to wince. I do not mean to enumerate other conditions which may simulate perforative appendicitis, except to mention that here in the Mississippi Valley especially, cases of malaria are occasionally met with which easily mislead us, closely simulating perforative appendicitis. One such case I recall in which the symptoms pointed strongly to a perforative appendicitis and in which the diagnosis was concurred in by three very competent men. There existed a leucocytosis of 25,000; malarial plasmodium could not be found after repeated search. Operation showed an appendix with no evidence of disease, and the patient promptly recovered upon the administration of quinine. The appearance of severe shock or collapse early or at the beginning, if a secondary attack of appendicitis, gives strong evidence of perforation. The face gripe, forehead furrowed, features drawn upward is often marked in perforative cases were suffering is severe. Such facial aspect, with restlessness and marked vital prostration, may indicate a gravity unnoted in any other way. The period of repose, which is com-

mon to all perforative lesions of abdominal viscera; the cessation for a time of most marked and disquieting phenomena, in a grave case, must not mislead us and arouse false hopes. Acute, perforative appendicitis is one of the most dangerous of conditions and prognosis must always be guarded. Vomiting, severe and continuous, or which, having appeared early, disappears for a time and then returns, has a great prognostic value and indicates a grave condition.

I think that all the profession will concede that perforative appendicitis is distinctly and always a surgical disease and that the treatment must of necessity be operative. So much being granted, there remains for solution only the question as to when shall operation be made. As I have said earlier in this paper, I believe that perforation occurs but rarely in primary appendicitis, *i. e.*, in the first attack. For the few cases in which this unfortunate accident does take place I believe that operation should be made at once if surroundings and circumstances are such that aseptic operation can be had at the hands of a competent and experienced surgeon. Cases of perforation occurring with the first attack are ordinarily of the fulminating kind, and symptoms generally point to perforation with extravasation and extensive peritoneal infection. It may be difficult or impossible to differentiate between perforation of the appendix and perforation of the stomach, duodenum or other viscera, but granted that the diagnosis of the perforation of an abdominal viscus with extravasation into the peritoneum can be made, I think that the surgeon should not

hesitate to operate at once. This plan, it must be recognized, gives the unfortunate sufferer a better chance for recovery than any waiting policy can do. What one can hope to gain under such conditions by waiting I cannot see.

There must result a widespread, if not diffuse, general peritonitis, and it is well known that such a case must almost certainly succumb under medical treatment, and delay in operation gives time and opportunity for this peritonitis to destroy, from hour to hour, the patient's chances for recovery by operation. On the other hand, if the source of infection be removed, so far as possible, and the previously healthy peritoneum be given a chance to assert its wonderful power, it may, and frequently does, overcome the damage already done, and the patient recovers. The wonderful results recorded recently by Dennis⁵, in whose series of 119 cases, with only two deaths, were eleven cases of acute perforative appendicitis without limiting abscess and with pus free in the peritoneal cavity, and with general peritonitis, are most gratifying. In these eleven consecutive cases were no deaths. In two cases the time after the onset of the attack before operation is not stated; in two, operation was made one day after onset. In one case time is given as several days. In three cases operation was three days after onset, and in two cases five days after beginning of attack. In one case operated on three days after onset the infection was not by the colon bacillus, but by streptococcus, but all these cases recovered. Remember that these cases would all have been fatal without operation. Recall, too, that

the mortality in all cases of appendicitis under medical treatment is about 16 per cent., with 30 per cent. of relapses.

Fowler estimates that 13 per cent. of all cases develop diffuse peritonitis. There is perhaps a limited number of cases in which perforation occurs during the first attack, but in which the process is not rapid. In these cases there may very reasonably appear to be a hope that the inflammatory process may be arrested and the patient recover and be operated on during the quiescent stage. Of course, if we could be sure that the patient would survive the initial attack and come to operation afterward, in the interval, it would be best to wait, for the mortality in interval operation should be nil. We have seen, however, that the symptoms of catarrhal and perforative appendicitis are often alike, and there is no way to distinguish between them. We know that in most cases operated on, conditions are found worse than estimated before operation. Therefore, my feeling is that where diagnosis can be made early, operation should be made at once. In advocating early operation I do not lose sight of the difficulty of operation in acute cases. The uncertainty of finding the appendix has been mentioned. This may possibly occur, but of this I must acknowledge myself skeptical. My experience in a very considerable number of cases is that, while it is often quite difficult to find an appendix in acute cases, that where no pus is present or pus is present in only limited quantities, the appendix can be found. Bearing in mind the increased danger of operations in the presence of extensive

adhesions, resulting from the policy of delay, why wait, when the diagnosis can be made early? Amelioration of symptoms should not contraindicate surgical interference. Dangerous pathologic changes may progress when all conditions *appear* favorable. The exact conditions existing cannot be known until the abdomen is opened. There remains, unfortunately, a large class of cases to be considered in which the patient is first seen by the surgeon in the third, fourth, fifth, sixth or seventh day of the attack, either from difficulty in arriving at a diagnosis, timidity on the part of the attending physician or for other reasons, sometimes good and sufficient, the patient comes to the surgeon after the favorable time for operative interference is past. Such cases must, I contend, be each considered on its merits. It is in this class that we must of necessity pause to consider the excellent results arrived at by the method adopted by Ochsner, the withdrawal of all food and drink by the stomach, gastric lavage, rectal alimentation, and awaiting the favorable time for operative interference. This time would be, of course, when the abscess incident to the perforation is so strongly walled off from the general cavity that the abscess can safely be drained and the appendix removed or left for removal later. Here experience and a careful study of each individual case must guide us in our judgment as to the best time for operation. I know of no way to generalize. Cases come on the third, fourth, fifth, sixth, seventh day after onset, with severe distention of the abdomen, tense abdominal muscles, bad facial expression, marked

nervousness, pulse above 100, persistent nausea or vomiting. These are desperate conditions, yet *not all* such patients have diffuse general peritonitis, and some improve under Ochsner's regime, so that conditions are much better for operation at a later time than when first seen by the surgeon. It must be, however, a bold man who advises delay. Rehn⁶ says very pertinently: "We dare no more ask *which case* should I operate, but when do *I not need* to operate?" However, he who waits must be ready to assume tremendous risks and ready to answer most scrupulously to himself. All conditions should be most carefully and critically watched, with especial bearing on the point *not to allow* the most favorable time for operation to pass. I have never yet seen an appendicitis case operated on which I felt came to operation too early. All of us have unfortunately seen cases where the patient's chances would have been much improved by earlier operation.

Finally, I wish to be recorded as in favor of the *prophylactic* treatment of perforative appendicitis. Since the most of perforative cases occur in secondary attacks, why allow patients to take such desperate risks? When a patient has recovered from one attack of appendicitis, be it of apparently ever so mild a form, remove the diseased organ. We know that the mortality of the interval operation should be nil, or practically so; why, then, expose patients to recurrence and all its attendant dangers? Even if an appendix occasionally be removed from a patient who might never have another attack, to what harm? I am willing to grant that a certain small proportion may have one attack and

never a second. This number, however, is so small that I feel sure the mortality would be greatly lessened were all cases which recover from a first attack subjected to appendectomy before a second attack. I am not losing sight of the occasional difficulties of diagnosis, especially in children, to which our attention has lately been drawn. But better an occasional *normal prophylactic appendectomy* than the deaths incident to recurrent attacks of appendicitis.

Pardon my once again sounding a caution against operation at the hands of incompetent men. Dennis pointedly declares even catarrhal cases safer by Ochsner's plan in the hands of a novice than by operation, and cites an instance coming within his knowledge of one surgeon (save the mark) who operated on nineteen consecutive cases with nineteen deaths. The position which I have taken in this paper presupposes a fair amount of knowledge, experience and operative skill on the part of the surgeon. When the first attack is fulminating, death may be unavoidable. If a patient suffering from perforative appendicitis has had previous attacks, some one is responsible for the perforative case. Let us not be compelled to hold ourselves responsible for any such unfortunate results.

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CHRONIC APPENDICITIS.

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The division of the subject of appendicitis under so many headings necessarily curtails what I may have to say on the subdivision assigned me, but there is no phase of this important subject the discussion of which is not of interest and grave importance to the professional man. The progress made in the study of this disease, which has been discussed so extensively in medical literature, and a knowledge gained by the laity, should make a condition of *chronic* appendicitis less frequent. What I mean to say by this is, that the mortality and frequent disastrous results in appendicitis, when not interfered with surgically, should have taught the surgeon as well as the general practitioner and the people, that absolute safety rests solely upon surgical interference.

The appendix is considered the weakest segment in the intestinal canal because of its poor vascular, nervous and lymphatic supply. Its open intestinal ostium makes it a source of ever-present menace to health and life, and its frequent contact with the psoas muscle, to which it is often adherent, is one of the common causes of disturbance.

Of all diagnostic symptoms perhaps muscular resistance over the region of the appendix is the most trustworthy, and yet this is not always to be relied upon. The value of the blood count in differentiating between appendicitis, colic, typhoid fever, ovarian neuralgia, impaction of feces

and floating kidney, though variously estimated by different operators, is by the majority given credence as to its guidance. Deaver says it is valueless as a diagnostic aid. Perhaps the most difficult differentiation is to be found in the right side trouble in women. The appendicular, tubal and ovarian pain and sensitiveness are often so closely associated as to be perplexing to the most careful and acute diagnostician. As a rule, however, a vaginal and rectal examination will exclude tubal disease when not involved, though it often *does* exist in conjunction with appendicitis. Here, again, muscular resistance will aid us, as it is not nearly so rigid over the ovarian as over the appendicular region.

As in chronic appendicitis we do not have to deal with the first attack, and perhaps only after a number of attacks, we more frequently do not encounter pus cavities. In such cases we often have as a result of repeated attacks, adhesions which establish a condition of confirmed invalidism. In these abdominal inflammations the omentum in its great and conservative function becomes adherent to the inflamed area, and often acts as a constrictor upon the ileo-cæcal region, interfering with the action of the bowels and the passage of gas. In chronic cases, where the inflammation has not extended beyond the peritoneal coat of the appendix, recovery generally follows operation in which the appendix is removed, but in pus

formation in the walled-off abscesses it is not always possible or *prudent* to remove the appendix. Despite the position taken by Deaver and others, that the appendix should always be removed, not only the *trend*, but the actual practice of the great majority of surgeons tends toward the more conservative practice of opening the abscess and draining. As sometimes happens as a result of appendicitis, we have a collection of pus in the pelvic cavity which can be best evacuated through the vagina or the rectum. Deaver condemns this method of dealing with pelvic accumulations, in which, however, all writers do not agree.

A few years ago I had just such a case in a man with an enormous collection of pus in the pelvic and lower abdominal cavities, which, I am satisfied, had I evacuated through the rectum, my patient would have recovered. As it was, an abdominal incision was made and the upper peritoneum became infected with a fatal result.

As to the best time to operate in a

case of appendicitis where the case is not seen early, I am impressed with the valuable experience of Ochsner, who waits for the subsidence of acute symptoms, and operates between the attacks. He reports only eight deaths out of 248 cases thus treated. Sir Frederic Treves reports one thousand cases operated upon between the attacks with only two deaths.

Within the last few years results have been obtained in desperate cases of general purulent peritonitis from appendicitis by free drainage of the abdominal cavity. Preferably in these cases it is best to make two openings for drainage, with copious flushings of the peritoneal cavity with a normal salt solution of sterile water, or simple drainage without flushings, as the judgment of the operator may dictate.

Deaver has said that such a result is not possible, but as we grow in experience by actual practice our opinions undergo evolution which compels us to accept measures formerly condemned, and to condemn methods formerly accepted.

TECHNIQUE IN APPENDICEAL OPERATIONS.

BY JABEZ N. JACKSON, M. D.,

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In the technique of appendectomy the first problem presenting is as to the

Location of the Incision. — This will primarily depend upon the location of the appendix in the individual case. The incision must be so placed as to give ready access to the focus of disease, and may therefore occasion-

ally wander to a considerable extent. In the vast majority of cases, however, or in what may be considered normal cases, the incision must be located somewhere near the so-called McBurney's point. The incision most frequently employed is placed parallel to Poupart's ligament with McBurney's point as its center. As a matter

of fact, for most direct access to the appendix the incision should be made slightly further down, though the anatomical development of the abdominal muscles makes the higher incision preferable where one does the intermuscular or gridiron operation. In some instances where the appendix approaches more nearly the median line, a straight incision paralleling its fibers and near the outer edge of the rectus muscle is preferable. In this instance the muscle is either drawn to one side with retractors or its fibers split apart, and no muscular fibers are cut transversely to favor subsequent hernia. This incision I think especially desirable where, in the female, there is a question as to our differential diagnosis between appendiceal and tubal, or ovarian, disease.

In *retrocæcal* or *retro-peritoneal* cases with abscess formation the incision should approach more nearly to the pelvic crest and should be rather backward than downward. Thus the abscess is reached from behind and frequently entirely retro-peritoneally, thus lessening the danger of disturbing protective adhesions in front and internally and of infecting the general peritoneal cavity. I consider it likewise preferable in a large percentage of cases operated upon in the mid-early stages of an acute appendicitis, since the general peritoneal cavity is thus saved from manipulation, which endangers diffused infection.

Length and Character of Incision.—In general terms the rule should be to use as small an incision as is compatible with correct technique in the intra-abdominal portion of the operation. In abscess cases, of course, a freer and larger incision may be

necessary for adequate drainage. Likewise, in cases of extensive adhesions without pus a rather free incision may be necessary. But in the cases of early operation, and in catarrhal appendicitis, or in the quiescent stage of recurrent appendicitis, unless complicated by extensive adhesions, an incision of from one and one-half to two inches should be ample to an experienced operator with intelligent tactile sense. In favorable cases with thin and relaxed abdominal walls I have occasionally found a one-inch incision entirely adequate.

Character of Incision.—(a) The straight through-and-through incision is probably the one most used. Where a long incision is necessary it is, of course, the only alternative, especially in pus cases. (b) Whenever possible, however, I greatly prefer some method by which the transverse division of muscular fibers can be avoided, since thereby we greatly lessen, in my judgment, the liability to post-operative hernia, and, likewise, much decrease the necessary time of detention in bed after operation. The incision through the sheath of the rectus muscle, as previously mentioned, has, therefore, an advantage over the straight muscle-cutting incision generally used. (c) The ideal of all incisions, however, when applicable, is the intermuscular, gridiron, or McBurney incision, as it is variously known. In this operation we split between parallel fibers of each of the three planes of abdominal muscles, each of which, likewise, runs in a different general direction. Retractors hold the muscles apart while the intra-abdominal work is done. At the completion of the operation, when the

retractors are removed, the various planes and fibers fall together so naturally and nicely that deep suturing seems almost unnecessary, and the strength of the abdominal wall is not impaired at all. In these cases a week or ten days' confinement in bed is all that is required. It can be adapted to all cases except abscess cases and cases of extensive adhesions, where the limited opening afforded is inadequate, or to cases where the appendix does not underlie this muscular plane. It seems ideal.

Peritoneal Protection.—In cases of localized pus formation, where nature has not previously walled off the general peritoneal cavity, or where these adhesions are recent and delicate, it is very important to thoroughly wall around the abscess area with gauze packs or sponges before opening into the abscess itself, thus protecting the general cavity from being flooded with material for general peritoneal infection. These protective barriers are not disturbed until our intra-abdominal work is completed, when, after the proper cleansing of the infected site of the abscess, they are either replaced by permanent protective gauze drains, or if drainage is not required, they are removed entirely. In retrocaecal appendicitis with pus formation this precaution is especially urgent. In fact, in these cases (which Deaver calls the "bad type" on account of the extremely high mortality attending them) I believe it very much safer to operate oftentimes in two stages. In the first operation the caecal area is simply well packed around with gauze which is left *in situ* two or three days. Then when adequate protective adhesions

have formed, the retrocaecal space can be opened up without fear of peritoneal infection. This procedure combined with the posterior incision for drainage previously mentioned, would undoubtedly greatly lower the mortality in this dread type of trouble.

Finding the Appendix.—The abdominal cavity having been opened the next problem is to find the appendix. In this part of the technique I have often been surprised at the apparent uncertainty of method employed by many surgeons, who seem entirely blind to the definiteness of anatomical construction, and who pick up at random first one loop of presenting intestine and then another in their effort to find the ascending colon which is the usual guide employed. Much valuable time is thus lost and needless handling of the viscera is occasioned. Let it be remembered that the meso-colon of the ascending colon is always the outermost point of reflection of the peritoneum from the posterior parietal wall. Then remember that the attachment of the mesentery running obliquely downward from the splenic flexure on the left joins the mesocolonic reflexion on the right in the right iliac fossa. At the juncture of these mesenteries is always located the caecum and with it the appendix. The index finger, therefore, entering the abdominal cavity quickly follows the lateral abdominal curve downward, backward and then inward until the peritoneum is felt to leave the abdominal connection to pass on to the ascending colon. The colon should thus be immediately located and picked up if desired. Then we can follow its longitudinal bands

downward until they terminate in the attachment of the appendix below. Or, better still, in the majority of cases when we detect the mesocolonic reflection, we simply follow the finger down its outer border until the finger slips around its lower edge where it joins the mesenteric attachment at an acute angle. Here the tactus eruditus will usually recognize the appendix, which is then picked up and delivered without necessitating the delivery of any portion of the other intestine. This can be done more quickly than described, and, while a small point, is one which adds to the beauty and completeness of anatomical surgery.

This technique is obviously limited to cases with few or no adhesions. In cases of extensive adhesions, as a rule, it is necessary to deliver the colon by the first described method in order to thoroughly deal with the adhesions surrounding both colon and appendix whose division is of equal importance with the removal of the appendix.

In abscess cases, and especially in those of long standing, when the appendix is thoroughly hidden in a maze of peritoneal adhesions, it even becomes a question as to whether it is advisable to make a prolonged or thorough search for the appendix at all. Of course, if this can be done without undue danger of liberating pus into the free cavity, it should be done. Otherwise, I consider the determination to find the appendix at all hazards a dangerous procedure. It is well to remember here, also, that sometimes in these cases there may have been primary separation of the appendix by necrosis, close to its attachment to the caecum, and that

there is, therefore, no appendix to find. Even should the appendix not be found and give rise to later trouble, it would at least be safer to remove it at a later operation in a non-septic stage. In many of these cases, therefore, simple evacuation of the abscess with thorough drainage without location of the appendix is a safer procedure.

Amputation of Appendix.—When the appendix has been found and delivered we are ready to proceed with its amputation. Here we find much variance in the technique of various surgeons. The preliminary ligation of the mesentery along its free border to control its arterial supply is usually made with catgut by most operators. Then the amputation of the appendix may be completed by various modification of essentially four general methods. The more radical procedure consists in a *complete excision of the appendix* at its juncture with the caecum and a closure of the intestinal opening by suture, as done for any intestinal wound. In cases where the appendiceal perforation is well up at its base this is practically the only course open. It may likewise be done in any case and is certainly a pretty procedure. On the other hand, the free opening into the caecum permits a possible leakage of intestinal contents, especially if the caecum is full of fluid faeces, and thus adds an element of danger of infection from either primary or secondary leakage. It is not, therefore, my operation of choice.

(2) Another method, as advocated by Dawborn of New York, is after amputation of the appendix near the

caecum to dilate its lumen with forceps and then to invaginate the stump into the interior of the caecum and close the orifice externally by peritoneal suture (Lembert). This method presents the same objections as the first method described without its attendant advantages.

(3) A third method is by compression of the stump of the amputated appendix with compression forceps to prevent leakage and then shoving it inward toward the caecum and covering with purse string or Lembert sutures. This is most expeditious and has given excellent results in the work of such men as the Mayo brothers and Nicholas Senn. To me it seems, however, likewise somewhat in danger of leakage.

(4) The fourth method consists in ligation of the stump after reflecting a peritoneal cuff, amputation with cautery knife or with knife followed by cauterization of the mucous lining with cautery or carbolic acid, and then closure of the peritoneal cuff over the stump. This has always seemed to me to be at least the safest method as it affords absolutely no chance of leakage. It is, however, difficult when we have a highly inflamed and friable peritoneum, with which it is difficult to reflect a cuff at all. In that event I believe the excision method preferable.

In any method one essential feature should be to thoroughly cover all raw surfaces with fresh peritoneum to prevent the troublesome after-pains from adhesions. In this connection I desire to suggest that if the mesentery of the appendix be cut long, it can be admirably used to suture over the stump wound and afford thereby

also a double layer of protection from leakage.

Toilet of Peritoneum.—After the appendix is removed, in clean cases, no toilet of the peritoneum is required unless there has been leakage. Even ordinary leakage should have been caught on a preliminary gauze packing in the wound around the prospective stump, and clean sponging before dropping the stump back, is all that is required. The less the sponging and handling of an infected peritoneum the better.

In pus cases several different methods are used. (1) Free irrigation was formerly the rule and is still used by many. Personally I think it rarely necessary or advantageous and often a source of great danger from diffusion of infection. In localized pus other methods are equally as good. In diffused suppurative peritonitis it is useless.

(2) In the latter class of cases, however (usually most desperate), I believe the free continuous irrigation of the peritoneal cavity with hot water at a uniform temperature of about 110° F. for a prolonged period may save otherwise hopeless cases. For reasons for this belief I would refer to my article read before the St. Louis Medical Society on December 19, 1903, and published in the *St. Louis Medical Review*.

(3) Morris, of New York, has advocated the cleansing of the infected area with peroxide of hydrogen. Personally I have never found any value from its use, and consider it instead an added danger from the liability to diffusion of the pus with the distension produced from the gas liberated in its use.

(4) In the majority of pus cases clean dry sponging of the infected area, with the least disturbance of distant areas, is, in my judgment, by far the best course to pursue.

Drainage.—Drainage is becoming less and less popular in abdominal surgery. In clean cases there is no excuse for its use. In localized recent pus cases, after thorough clean sponging, it is rarely necessary, as Morris has well demonstrated. In large abscesses, however, and in rather virulent cases at an earlier stage (particularly in streptococciæ cases) it is perhaps safer to use drainage for a short while at least.

In that event a rather free, but loose, gauze drain is desirable. Tubular drainage is of little value unless combined with the gauze pack. If gauze drainage be found necessary it is best not to remove it before the end of four or five days. An earlier removal is painful, opens new opportunity for infection, and if not necessary longer was not necessary at all.

Closure of Abdominal Wound.—Unless drainage is necessary the immediate closure of the wound is next in order. The method of closure is to some extent dependent upon the character of the wound. The so-called through and through method, approximating all layers at one time, may be necessary to save time in cases of prolonged operative procedure or in shock from any cause. Otherwise I think it should become obsolete.

The deeper structures should be closed by layer suture; plain catgut for peritoneum and chromicized catgut for muscles and fascia. The aponeurosis of the external oblique

should be sutured with especial care, as it is so largely responsible for the integrity and strength of the abdominal wall. Care should be taken that these sutures are not tied too tight lest they produce strangulation of the tissues and lead to trouble from strangulation necrosis. Approximation without tension is all that is desired. The skin wound is preferably closed with a subcuticular suture, and for this purpose I prefer silkworm gut. If this alone does not produce absolute skin approximation a few strips of adhesive over a small longitudinal gauze pad, or compress on either side, will remedy the defect. By this method the hideous ladder-like scar of the through and through stitch is replaced by a simple linear scar little more perceptible than a scratch. And in this particular, especially in women, it is well to remember that cosmetic effect adds much to the esteem of surgery as an art as well as a science.

DISCUSSION.

Dr. George Halley, Kansas City:—The subject of appendicitis appeals to every practitioner in a way. As a rule it is the medical man's rather than the surgeon's disease. It has been well said that eighty-five per cent. of the cases get well by ordinary treatment—rest in bed, opiates, etc. Some have gone to the extent of saying that without any treatment whatever eighty-five per cent. will recover, that is, from the attack. It is the remaining fifteen per cent. that will require the attention of the surgeon. It is this large number of cases rather than those to which the essayists have devoted their attention

that will have to be discussed by the general practitioner. The cases of catarrhal appendicitis are those that appeal to every practitioner for careful study, for considerable experience has shown me that the danger is not in not operating, but in jumping at false conclusions and operating unnecessarily.

Dr. J. M. Allen, Liberty:—I speak as a general practitioner who has seen many cases of appendicitis before and since it was recognized as a disease. Before the seventies appendicitis was not recognized as a cause of peritonitis as it is now. The difficulty in diagnosis is the differentiation of it from perityphylitis, where many mistakes are made. There are two forms of this disease which are quite distinct—the sthenic and asthenic. The sthenic is more apt to result in resolution than the other variety. A large majority of the cases of the asthenic result in pus formation; therefore should be operated on at an early stage. Without discriminating as to the character of the disease, it is claimed that 75 per cent. recover without operation. I think I can safely say that 50 per cent. of these recoveries belong to the sthenic variety, because the natural tendency of this form is the more rapid formation of adhesions. In the treatment of these cases that tend to recovery, I confine my cases to the bed for five or six weeks so that the adhesions may be firm and no risk of dissolving. I have not had a single case of this kind to have a secondary attack.

Dr. O. B. Campbell, St. Joseph:—The position taken by the various essayists this morning on this vast subject can be agreed in by most of us.

If it were possible for the clinician to diagnose most cases, then there would be no question when to operate and when not to operate. Then the position taken by the first essayist on the subject of catarrhal appendicitis would be correct. But this position, not to operate in catarrhal appendicitis, is the stumbling block that has caused more deaths in appendicitis than any other. Physicians and surgeons who hesitate to operate have practically hidden behind this, which is particularly a misnomer. When the physician can say that he is dealing with a case of catarrhal appendicitis, or one that is likely to perforate, or that there is a perforation and that thrombi are forming, then he will be in a position to know when to operate and when not to operate. But none of us can hope to do this. Therefore, I am glad we do not quibble much on this subject. Members of the profession the world over recognize that we are dealing with a condition we cannot always diagnose. The position taken by some, to operate within the first twenty-four or forty-eight hours, is the position that has stood the test of time. Of course, there is a little qualification necessary. We do not mean to operate within the first twenty-four hours after seeing cases that have been running on for seven or eight days. It seems to me that the profession has made the mistake of thinking that this means that operation must be done within the first twenty-four hours after the patient is seen. We mean within the first twenty-four hours after the onset of the disease. It seems the members of the profession are getting a little mixed on the

Ochsner treatment, the starvation treatment. Formerly the profession treated appendicitis by the use of opium, and so the patient starved himself because he could keep nothing on his stomach. Of course, the Ochsner treatment is a dangerous procedure, because there may be present any one of the conditions mentioned here this morning. Where the pus is being walled in, where we feel it would be hazardous to open the abdomen at all, then the use of opium and rectal nourishment might be all right. It has a place but not in every case.

Dr. Herman Tuholske, St. Louis:—It seems to be almost a matter of supererogation to discuss the most excellent papers I have heard this morning. We have had a complete, scholarly, erudite presentation of the subject. I do not think we could, in the different opinions expressed today, find points not touched upon by some of the gentlemen. It seems to me, therefore, that nothing more need be said. It would be simply, perhaps, a matter of individualizing. It never can come to be a fact that for any surgical disease or procedure we trace the exception that makes the rule. It is the power of individualizing that makes for success. It is therefore impossible to lay down a rule for every man. Each will judge according to his experience and mental caliber. I remember when I was young in appendicitis, being present at a meeting of the St. Louis Medical Society when appendicitis was being discussed. I was asked what I had to say on the subject. In the enthusiasm which experience had not yet cooled, I made this speech: Mr. Chair-

man, make the diagnosis and then operate. I do not know how much I have to retract, but I believe that in every case to which we are called it is not a question, shall we operate, but when shall we operate? I am not speaking for the surgeon alone. The physician who sees the cases is as able to make the diagnosis as the surgeon. The surgeon, possibly, does not see the case during the first twenty-four hours. The question is, when shall the surgeon operate after he sees the patient? A careful examination of the status præsens of the case is necessary. There are cases where the patient presents an appearance of well-being and is clearly improving, where we can be fairly certain it would be good judgment to keep the patient under observation and operate after the attack. We may occasionally make a mistake. There is no absolute sameness in appendicitis and there are always symptoms that must be taken into consideration. The diagnosis is sometimes difficult. Pain is not always in the right iliac fossa. I have cut for the appendix on the left side. I have opened the abdomen looking for an appendix and found a perforated Meckel's diverticulum. I have seen an appendix that was simply the result of a catarrhal appendicitis, and it was twelve inches long and four inches in circumference and held all the fluid it could hold. I have seen one nearly that size, full of pus and very much like an empyemic gall bladder. We may find (and that would perhaps make us think that there are cases which would not need operation) an obliteration of the appendix—appendicitis obliterans. I

remember one case of appendicitis recurrens. The periods between the attacks were of short duration, the condition recurring every few weeks, but there was the everlasting tenderness of a grumbling and kicking appendix. The doctor wrote me that he had a patient who had had a number of attacks of appendicitis and he wanted to know when to operate. I said, let him get well and send him to me. But this patient did not get a chance to come then. He had a few more spells and came a year later. I did my duty and cut him open and found this appendix after a great deal of trouble, and it was just a connective tissue string, the cavity absolutely obliterated. Did I do him any good? He was absolutely better off with that string than the scar. It would have been better to have kept my hands off.

Dr. C. M. Nicholson, St. Louis:—Having listened to a very scholarly presentation of the subject, the ideas set forth being in keeping with the most advanced thought of today, I feel there is little to do other than agree with what has been said. Dr. Jackson in speaking of the incision said it should be made over the appendix, which theoretically is eminently proper; however, it is difficult to determine the position of the appendix prior to the time the belly is opened. I know of no better rule than to make an incision half way between the umbilicus and the anterior superior spine of the ilium inclining downward and inward along the margin of the rectus which is uninjured.

The surgeon who can do a good piece of work with a one-inch incision can do better work with a two-and-a-

half inch incision, except in the simple uncomplicated cases where the appendix can be brought out of the wound and the work done anterior to the abdominal wall, and even in those cases in order to have an inch incision in the peritoneum, it is necessary to make a two-inch incision in the skin if the muscle-splitting method is made use of, or even more than two inches if the abdominal parietes are very thick. Eighty per cent. of operations on the appendix are not operations for appendicitis. They are simply amputations of the appendix in which there has probably existed evidence of disease. It has been stated on good authority that thirty-one per cent. of cases in which the appendix is removed show no evidence of disease, sixty-nine per cent. show some evidence of disease. In this series all cases were operated on between attacks. Some gentleman in discussing the paper said "the time to operate on any case unless the symptoms are so severe as to lead us to believe the patient will not live, is between attacks." Then there is done not an operation for appendicitis, but simply an amputation of the appendix. I believe it is seldom that surgeons experience difficulty in finding the organ. The longitudinal bands of fibers on the colon if followed always lead us to that portion of the cecum to which the appendix is attached, whether it be (1) the conical foetal form, or (2) the more quadrilateral form, or (3) where that part of the caput coli that lies to the right side of the anterior band grows out of proportion to that part to the left of the band, or (4) that type in which the development of the part to the right

of the anterior band is excessive.

In case of large abscess where the general peritoneal cavity is walled off, where an incision over the most prominent part of the tumor allows the pus to escape, no attempt to find the appendix should be made. Simple drainage, as an abscess elsewhere would be treated, is all that is indicated. I make it a rule (to which there may be exceptions) in cases coming under my observation within thirty hours after the onset of the symptoms of the disease to advise immediate operation. In other words, if in an acute attack the

appendix can be removed prior to the time infection of the immediate surroundings may have taken place, there is practically no more danger in operating than between attacks; however, if more than thirty hours have elapsed it is safer to wait until the inflammation has subsided. The simplest and I believe the most satisfactory method of treating the stump is inversion, following the application of the purse string suture at the base of the appendix. As to drainage, excepting the infected cases, I believe it should never be made use of.

SEX FORMATION AND DETERMINATION.

By T. F. LOCKWOOD, M. D., Butler, Mo.

During the past decade, medical science has opened ranks, admitting certain literature pertaining to man's genius in controlling human sex, all of which has as yet failed to find permanent lodgment in the minds of true thinking men, and when I view the situation from the standpoint taken by those who claim to have discovered this profound secret, I cannot enter the subject very enthusiastically; in fact I could scarcely consider it all so absurd is the theory, were it not that leading medical journals, monthly magazines and daily newspapers were publishing such misleading lore, with loud illustrious comments editorially, therefore I cannot refrain from taking exceptions to such unscientific measures and hereby appeal to the better judgment of our distinguished profession to assist in adjusting the credulous opinion of those who may have caught the popular

idea raging so prevalent a few years ago

It matters but little whether this question had ever been born, so far as lending weight to medical science is concerned. It matters not whether we agitate the problem of sex formation at this period of human existence, or whether we should ever be awakened to an humble consideration of same, so far as its effects favoring mankind, or strengthening perpetuity of the species is considered, for the same immutable laws of nature will continue persistently in the fulfillment of an established purpose. For insignificant man to proclaim in the face of facts and common reason, that he holds in his hands the power by which he can refute Nature, and by a mystic wield of his wand, majestically turn out a boy or a girl at will, and for the pleasure of speculative parents, is a magician to be sure;

one who juggles with the profoundest mystery in God's whole universe. Such proclamations are mere mockery of the divine law of Nature and should receive but little if any credit in the minds of a pious public that stands too ready to accept one man's diversified opinion in the face of many opposing circumstances; remaining steadfast until by preponderance of evidence, it is found wanting. When a subdued conscience is forced to relinquish its grasp and so reluctantly yields to the convincing truths of science. Then, O then, how revengeful! How reversible becomes the law of the legions in condemning the whole medical fraternity for the mistake by one made.

We should tread lightly and cautiously through the mystic and menacing vale of Nature; we can but fold our arms in great wonderment while viewing the beautiful handiwork of our Creator, and should shun all temptation to criticise His plans; but let us ridicule man's effort to procure a patent on some portion of God's designs that may not seem in full accord with his whims and wishes. Hence this pretense as manifested heretofore by some one in the east, is my only apology for dealing with the sublimest entity of God's power, and to expose, if possible, the fallibility of man's ability to improve on Nature's methods in doing things. No man should speculate on God's providential plans, either for gain or publicity. If we had the power to govern sex, and could keep it a secret within our own bounds, our services would be sought far and wide and handsomely remunerated by the noble and wealthy of our land. We need not limit our-

selves to pill-rolling and bone-scrapping, but turn our attention to formulating boys and girls. If such power was given into the hands of men, how easy it would be for the physicians to control the destiny of the nations. What bloody conflicts would result if we preferred to turn out all males to become soldiers to fight for our country, instead of equalizing the number with the fair sex to neutralize the gross nature of man, and to perpetuate the human species. All this is too absurd to believe that God would trust such sublime forces in the hands of his weak and discontented creatures, to say what shall be and what shall not be, etc. How strangely I feel when I realize I might have been a woman had I not escaped the juggling hand of the sex specialist. It is really amusing to believe we might have been other than what we are, had we been dealt with in utero by some sex scientist. Admitting that sex government was a science, to be relied upon at all times and in the hands of every practitioner of medicine, what a grave responsibility resting upon the heads of a defenseless profession, when the fruits of our labor were born and reared to maturity to be confronted with all the sins and sorrows of each individual peculiar to their sex, and to stand face to face with a dissatisfied progeny while they heaped abuse upon us for manipulating and maneuvering with the forces that governed their being.

God in His infinite wisdom, planted a force which governs sex, not of man only but of every living thing, far beyond the meddling dispositions of men, and the same unchangeable law that governs the sex in the lower an-

imal, also controls it in man. The same force that governed the gender in the horse, made you masculine. No influence of mothers minds can be brought to bear upon nature's aim. No hygienic surroundings will change the cell that nature planted for a specific purpose. No dietetics will sprout the germ that marks our individuality; nothing but a fulfillment of law established in the beginning of God's creation is necessary to produce one sex or the other, and all theories to the contrary are absolutely bosh. Take, for instance, animals that produce their young in groups of three or more, that have a mixed litter as it were, how complicated would be the process governing each sex? Again, in the human family where twins are born, one male the other female. What kind of phenomena is requisite to establish both sex in this case? We had as well believe in the old-time and well-exhausted theory of maternal impressions as to believe that mothers mind controls the gender of her offspring. We are only to be reminded of the process of conception and the role of gestation to realize the faulty relationship between the foetus and uterus, all of which will aid us in discarding the superstitious belief that mothers mind causes deformities and so-called birth marks in utero. It is not difficult to recognize the impossibility of the influence of mothers mind to travel through a non-conductive medium. With like propriety we might say that the impassive mind of the cat painted the spots on her kittens, as to hold the mind of the mother responsible for all the sorrowful freaks that may occur to her offspring.

Many physicians of years ago accepted the theory of "maternal impressions" and some are still clinging to the frazzle end of nothingness, dangling in mid-air, not knowing where to land, because of their not closely observing these same marks, these same deformities and the same deplorable freaks in the offspring of lower animals whose mind is continually at rest as far as thoughts for the welfare of her young are concerned. Take the impassionate hen, that lays the egg then loses sight and sense of its whereabouts, or even its existence, when a second hen is substituted to hatch the chick and to become its foster mother. Which hen is mentally responsible for the four legs, or two heads that so frequently happens in the fowl kingdom? The fault lies not with the mother, but in a misconstrued force of germination. Some element of a primary cell has become blighted and its purpose has been involuntarily defeated, hence the origin of monstrosities that mar the beauty and admiration of the human family.

Having demonstrated that it is folly to suppose that the mind of the mother marks her offspring in utero, I trust I have proven that if the sex of a new being be controlled other than by the hand of nature, must necessarily be governed through the same channel, that of the mind of the mother, and must now undergo the same scrutinizing criticisms as the impressions to which I have so freely alluded.

We have thus arrived at a gigantic phenomenon that yet belongs to the broad domain of the All-wise King and Projector of natural laws. It is here that human power and skill

should bow submissively in recognition of this physiological phenomenon, called impregnation and sex determination. It is here that in retracing our vital evolution we arrive at the brink of a mighty chasm that will ever remain unexplored by man, unless in the unforeseen days there be installed another god, with new and different laws governing the animal creation. Such foreign events as this have no promise of a decree, therefore we must content ourselves by studying the present plan of our creation. It is enough to know even this, and too much to know why we were created males instead of females.

The East and the old countries are birthplaces of many valuable scientific projects; in fact, they are perfect hot-beds for sprouting new theories and flooding the early western markets with their untried fruits. They have learned to appropriate the unsophisticated American as fit subjects for trying their new products, and the amicable American, crocodile fashion, gulps down everything thrown at him, not waiting for digestion nor assimilation, but immediately proclaiming aloud, How delicious! How exquisite! How inspired are the words of the wise men of the East! Dr Schenck, of Germany, gained greater notoriety for his bold assertions along the line of sex determination than any one else, perhaps, but he was not so adroit as to establish for himself an international reputation. Like many such mushroom theories, it vanished from the sunlight of investigation, like a morning vapor before a mid-day sun. Since his public announcement that he was negotiating with the Royalties

for preferred offsprings, we have heard but little from him, which is conclusive that his experiment was a failure, that his theory exploded, and his disappointment was so keenly felt that he has withdrawn from the experimental field, leaving the fragments of his air bubble to the ways of the wind. If you will follow these jack-o'-lantern theories, shining for a season in certain localities, you will find them like the "Will-o'-the-Wisp," a mere phantom, floating in the fancy of the minds of men, and as incapable of materializing as the earthly spirit of an unknown departed.

We do not fail to appreciate good and useful things discovered, no matter by whom, and I believe in giving prompt credit where it is justly due, rendering aid whenever and wherever it is demanded, but we should earnestly guard the portals of our science against empirical dogmas, for it is with the utmost strenuousness that we maintain the system of medicine as a science. It is not a true science, for I believe there is but one true science and that belongs to the physical laws of nature. A true science is a specific result obtained at all times under like circumstances. Sex formation is a true science because it is the result of natural laws and as unchangeable as the Creator Himself.

No doubt this association would feel its disappointment much keener after having lavishly liberated my views on this question, if I should fail to offer some solution to this great sex problem, therefore I shall endeavor to meet the expectations inasmuch as I am literally obligated, and as far as I am practically able. I

shall not claim for anything I may say infallibility, for the utterances of men are prompted by ideas culminating from diversified minds, and as I am no different from the rest, my solution is wholly theoretical and subjected to the same criticisms and should share the same fate at your hands as those which I have attacked.

The female ovum, thought by many to be the very concentrated essence of animal creation, is but a receptacle for certain proteids necessary for primary development in the embryonic state. All animals that develop their young outside the body, and that rely on their own resources immediately after birth for sustenance, as a rule, produce large eggs. The fowl lays large eggs and the greater part of this bulk is meat for the dependent embryo. The fish and frog, however, bear features contrary to this rule, from the fact that their embryonic young subsists on elements contained in the surrounding medium. The turtle's eggs that are deposited in the sand for incubation, and the eggs of serpents, contain large quantities of this proteid matter. The human ovum, a very delicate formation of only about one one-hundred and twentieth of an inch in diameter, but sufficiently large to nourish the infinitesimal embryo until its adherent relationship with the uterus becomes well established, receiving its nourishment from the mother's blood, is one to which I shall confine myself largely.

It has been my aim to show the insignificance of the ovum in the role of creation and to establish, if possible, a greater supremacy for the spermatozoon. I am led to believe we

have placed too much importance upon the function of the human ovum and paid too little attention to the male spermatozoa. I know most physiologists claim that the ovum is an inanimated substance, only waiting for fecundation by the male spermatozoon to stimulate actual life, but we must admit that the unimpregnated ovum is dormant as far as being capable of movement except in its natural route, and only then as it is transported by the physiological forces of the mucous villi. It does not seek the spermatozoa, but ripens and passes out of the body as waste material, just as the menstrual flow passes periodically, unless arrested by the embrace of the spermatozoon, when it serves the purpose for which it was intended, that of sustaining the life of an animal-cule until evolved into more substantial relationship with the mother. The spermatozoon possesses all the qualifications of perfect life, capable of traveling in various directions, and along new routes in search of the ovum. Here is where it gains superiority over the ovum by being stalwart enough to move about the premises in possession of another by natural right of inheritance, pre-empting and appropriating to its own use, field and food for future existence. If the spermatozoa fails to meet with the ovum in the usual plane, it does not cease its search, but goes on up the line, traveling sometimes to the very primeval habitat of the ovum and there lay claim upon it with the same tenacity as if it had met it in the uterine fold. It is the aggressor at all times, pushing itself to the completion of conception before losing its vitality. All this time the be-

havior of the ovum has not been influenced the least by the presence of a spermatozoon in the vicinity, but if per chance an ovum be passing out, the spermatozoon will, by its congeniality toward the ovum, seize upon it regardless of its selfish and inactive nature, everything being equal.

My object is to convey to your minds, proof of greater activity possessed by the spermatozoa over that of the ovum, that I may be enabled to trace the power of sex determination to that of the vitalized spermatozoon. There is a fixed period where this important feature of our gender is decided, and this decision has been rendered at the beginning of all fundamental plans of animal creation. The spermatozoa is the primary element of life from whence begins the development of man, and I believe the element producing sex, is molecular and is contained in the spermatozoa. In other words, the spermatozoon is either male or female, and when it unites with the ovum, the question of sex in the new being is no longer considered. If it should be male in molecular composition, the result would be a boy, and *vice versa*. When all boys are born to a mother, it is from a predominance of male spermatozoa and the same with the birth of all girls, the female germ prevails. It is providential that one or the other prevails, for the one reaching the ovum first claims the situation, and if one or more should jump the claim of another, a conflict immediately ensues and all involved become devitalized and pass out, doing away with hermaphroditic results. If the power of sex determination belonged to both, the ovum

and the spermatozoa, and if two or more spermatozoa should come in contact with the ovum at the same time, there would be reason to believe that we would have a mixed sex, provided all were not of the same gender. To prevent confusion and the union of a male spermatozoon with a female ovum, thereby producing a hermaphrodite, Nature placed the power of sex decision all with one force, giving one sex an equal chance with the other for existence. Owing to this well-fixed plan of animal creation, it is absolutely impossible for both sex to truly exist in the same subject. All reported cases of hermaphroditism I believe to be freaks, or perverted sexual development, merely sexual monstrosities, and are incapable of utilizing both capacities in perpetuating species which is evidence that one or both functions are wanting.

Animal life is not spontaneous, neither is sex formation spontaneous, and in order that a fulfillment of the law of creation be manifested, it is essential at the remote origin of man, that the gender of the new being be fixed, for it would not be a complete origin, one according to nature that did not possess all the elements necessary to develop a perfect being, sexually as well as physically. The molecular element that makes bone and muscle is contained in a nucleolus and the same is true with the sexual organs, the power controlling them is found in the anatomic cell of life, they must have an equal showing and an even chance for existence along with other special and specific organs of the body, notwithstanding their slowness in making a visual manifestation. The toes are the last to

make their appearance on the pedal extremities, but the element necessary to grow the toes certainly existed all this time. So with the generative organs, though they be tardy in appearance, the power of construction is imbued with the principle that develops its inevitable kind. The power controlling sex, then, is found in the remote forces that govern the origin of the entire being. In tracing human evolution from the time we are mindful of its gender back to its earliest infancy, lands it into the plastic hands of the great Creator, and all efforts of mankind to extort this supreme power are fallible. We might as well try to convert an ox in utero into a hobby horse, all saddled and bridled, ready for some sex scientist to mount and canter about his limited field of vision and understanding as to try to change a sex into its opposite. How absurd to think about persuading a sex into something different from what it was originally intended.

After a slight digression in following out hermaphroditism, I shall resume the original status of my subject, allowing the question to arise in the minds of my hearers. If the ovum is but a concentrated particle of food to supply the infinitely small organism before it has developed sufficiently to have absorbing qualities to abstract blood from the mother's system, and that the spermatozoon really contains all primary elements of the new being, why do we have an equal resemblance of the parents in the offspring? And why do we have a mulatto child born of a white father and a negro mother? These are important questions and I

am pleased to have them presented at this point of my essay. All human blood possesses the same visible and chemical characteristics, both to the eye and the microscope, no matter from what part of the body it may be taken. The same blood that makes flesh makes bone. The same blood that sustains the body forms integument giving it all the various tints and textures found through the human race. Each particular department of the body abstracts and appropriates its specific element of blood necessary to build its own structure, though differing from its adjacent compartment. Now as the blood of the mother is carried to the *foetus*, the same separation and the same appropriation of blood material is going on in the child's body as that of the mother. It really becomes a counterpart of the mother, and the exuberant blood of the mother, in performing the part of reproduction, would go contrary to the law of "like producing like" if it should grow a new being different from the parental model and the one from whence it receives its only means of development. This general resemblance of the offspring to the mother is very similar to our inherited resemblance to our primeval ancestry, and is so neatly arranged as to fully counterbalance the inherited likeness of the father, consequently the even blending of the two forces give off results found in the similarity of mother and progeny.

There is one other very important feature pertaining to maternal characteristics implanted in the offspring and it is this: We have sometimes observed, in long and close companionship, a resemblance of facial

features. You can go about an assembly of the aged, and a close observer may point out with some degree of accuracy the wife or the husband of this one or that one by the similarity of facial expressions, their demeanor is so perfectly blended as to mark almost a duplicate individuality. This being true in those who have become so interwoven in life as to simulate each other, it is no less true that the fond mother, in her devotion to her babe through the developing period of childhood, imparts these same like characteristics. Imitation of habit plays a part in resemblance of being. The monkey looks more like man because he acts like men. The child learns to speak its mother tongue; it takes up all the available habits of the mother; it soon becomes imbued with all the maternal traits, all of which tend to strengthen the

striking likeness of the child to that of its mother. This mutual and social relationship between mother and child is essential in duplicating character in the latter, while the anatomical and physiological relationship, strengthened by the innate entity found in the perpetuity of all living beings, is sufficient to account for physical resemblance of mother and progeny. Such is, in a brief manner, in accordance with my personal views, the sublime method of Nature in generating the animal specie and determining their sex, and if I have but awakened an interest in the problem of sex formation sufficient to promote further investigation along this line, that we may be enabled to add another scientific truth to the role of medicine, I will feel amply rewarded for my efforts in preparing this humble essay.

THE IMPORTANCE OF DIAGNOSIS OF DISEASES OF THE RECTUM.

BY DR. WM. H. STAUFFER, St. Louis.

It is a well recognized fact that diseases of the rectum have not received that careful attention by the medical profession which their importance demands. Other portions of the body have received a greater consideration and yet are of no more importance. From time immemorial, diseases of the rectum have been in the hands of the charlatan. For this state of affairs, we are largely responsible. Every part of the body should perform its proper function. Every one is aware that perfect physical health means nothing more or less than perfect functional activity as established by nature's immutable laws.

All efforts made by man to modify these functions have signally failed and, no matter what abnormal extent of tolerance may have been gained by the pleasure seeker, the epicure or the heavy drinker, their reckoning with nature must come at last, for they have reckoned without their host. No diligent student of the history of medicine can fail to discover the underlying cause for every ism or pathy with which the world has been either cursed or blessed, for, be it said to their credit, they have not lived entirely in vain. The true physician knows no bounds to his resources for knowledge and is ever ready to accept

and utilize anything and everything for the relief of human suffering. In our laudable ambition to perfect ourselves in the treatment of special organs and diseases, we too often overlook other organs and the systemic or so-called constitutional diseases. The general practitioner, as well as the specialist, must be on guard and never presume to treat a patient without a thorough examination and, if possible, a definite diagnosis. I believe the main importance in connection with medicine or surgery is a correct diagnosis of the disease. Indeed, I believe that, if the practitioner of medicine has correctly diagnosed the affection, he is very apt to be giving the right medicine. Without exception, this will require an examination of the patient. It is strange, but it is true, that a woman will readily submit to a uterine examination, who would strenuously oppose a rectal one; and I have found many men who would suffer the inconvenience, at least, of rectal trouble for years before they would agree to be examined for it.

Be this as it may, my advice would be to refuse to treat a serious affection of the rectum unless the patient consents to your decision. Less than this would do the patient no good and would do you harm. A rectal case under your observation and treatment, that is neither benefited nor cured, is a walking advertisement against you. If you have done your full duty according to your own opinion, if the cure is not absolute, you have the comfort of your own conscience at least.

One should always have present in his office, if possible, a trained female

nurse or an attendant to wait upon ladies and prepare them for examination, to adjust their clothing and assist in the administration of enemata. She should not be present, however, during the questioning of the patient, as this part of the examination should be confidential. While the speaker recognizes their usefulness and convenience, he holds that their presence, as a protection to the doctor, is an acknowledgment of weakness upon his own part and an insult to every lady who enters his apartments.

The average patient who enters the office of the general practitioner makes his own diagnosis of piles and is too often dismissed with an astringent ointment. I am not speaking of the various methods employed in making a diagnosis, but of the deplorable fact that no examination is made at all. The same man would never presume to treat any other part of our anatomy without first making a careful examination.

The pain endured by one afflicted with a fissure or hemorrhoids, to say nothing of a malignant disease of the rectum, is not exceeded by any other affliction endured by man, and, if we fail to relieve our patients, they will go where they will obtain relief, while we wait patiently for their return and our fee. The majority of diseases peculiar to the rectum and anus are very amenable to proper treatment. The amount of benefit that can be conferred by a well skilled surgeon is really remarkable. Most of the cases of cancer are not diagnosed until it is too late to do anything but palliate, while, as you know, if treated early, as in other parts of the body, the future of our patient is

much more encouraging. It is in such cases that an early diagnosis means so much for the welfare of the unfortunate victim of this dread disease.

The foregoing facts have been prompted by my experience of the past few years. Many persons have consulted me who have been treated by general practitioners, gynecologists, neurologists, and even by oculists and aurists, who have never suggested an examination for reasons only known to themselves.

What I have said has been from

the standpoint of the general practitioner and not a specialist, but a general practitioner who does not deem it beneath his dignity to treat rectal diseases.

A prominent Chicago physician, not long since, compared his windy city to our conservative, future scientific, metropolis, as the beginning is to the ending of the alimentary canal. While they continue to furnish us with meat and drink, let us demonstrate to the world that we are citizens of no mean city.

FIFTEEN CASES OF EXTRA-GENITAL CHANCRE OBSERVED IN 1900, 1901 AND 1902.

BY A. H. OHMANN-DUMESNIL, A. M., M. D., St. Louis.

Editor St. Louis Medical and Surgical Journal.

The subject of extra-genital chancre is one which always possesses a certain amount of interest for him who has occasion either to treat and observe cases of lues, or who reads the literature of the subject. It is not so many years ago that a case of extra-genital chancre was recorded as something almost extraordinary. Today there is hardly a medical student who has not seen several demonstrated by his professor. And yet, when we take the rank and file of medical practitioners who have served their time as hospital internes under competent teachers, we find the majority in such a mental condition that they hesitate to formulate a diagnosis when the case presents itself in their private practice. This is very easily understood when we take into consideration that they now assume a responsibility all their own, and a mistep is

apt to result in the loss of a practice which is just budding. We also have the family physician who suspects the true nature of the lesion, when an extra-genital chancre is presented, and yet hesitates to pronounce himself on account of the social standing of his patient, not deeming such a thing possible, and also from the fear that he might possibly be wrong and the statement of his diagnosis would result in his losing a very worthy and profitable family. Besides, the responsible members of such family might doubt him and even suspect his motives in telling what is really the truth.

It is not the intention here to make a thorough review of the subject. The most complete and elaborate review of the subject so far published is beyond all doubt that which is contained in the classic work of L. D.

Bulkley, "Syphilis Insontium." Of course, this does not include the extra-genital chancres acquired in other but innocent ways. These latter are numerous enough, but for elaborate tables of such we must turn to French and German authors who seem to have greater facilities for their observation. It must not be forgotten that genital chancres are vastly more numerous than the extra-genital variety, which latter is frequently never seen by practitioners who observe many cases of the genital sort. To him who is a close observer and has opportunities of seeing many cases of syphilis, cases of extra-genital chancre come before him frequently enough. As the writer stated in a former paper: "A question of more than ordinary interest which arises in each one of these cases is, how did the infection occur? This at best is most difficult to answer, and many of the methods which have been published did more credit to the imaginations of the writers than as satisfactory reasons to their readers. At best these can only be surmises and inferences more ingenious than satisfactory; and it is only in a small proportion of cases that absolute certainty may be asserted in a given one. This inability to trace the source of the origin of the infection, however, detracts in no wise from the interest attaching to the peculiar site affected or the character of the lesion presented. In fact, it is the sum of these peculiarities which renders interesting a subject which, under other circumstances, might be considered commonplace."¹

1. Twenty-five cases of Extra-genital Chancre observed in 1897, 1898 and 1899. St. Louis Medical and Surgical Journal, December, 1900.

With these few introductory remarks will be given the clinical records of fifteen cases seen in the three years succeeding the one in which twenty-five were seen. It may not be inappropriate to premise the matter by stating that the fifteen cases which will be outlined were all seen in private practice and no hospital cases are included in this record as were in the previous one. This is done for the purpose of giving a more adequate idea of what a physician is to expect in his practice.

Case 1.—A young man, aged twenty-four, a mechanic by occupation, presented himself for treatment. He was dark haired, of rather spare build, but strong and with comparatively well developed muscles. Upon interrogation he stated that he had not recently had headache or suffered from any other subjective symptoms. He stated that his last intercourse had been on the 5th of the month and that he saw a chancre for the first time on the 26th. Upon examining him I found two chancres. Upon palpation there was no pain in either. One chancre was located on the left side of the prepuce, in the balano-preputial sulcus. It was markedly indurated, this latter being of the variety known as cartilaginous. The other chancre was situated on the left side of the lower lip. It was the size of a silver ten-cent piece and pressure did not elicit pain. When, however, tobacco came in contact with it, it produced the sensation of burning. This case was interesting not only on account of the extra-genital chancre, but also because it presented a typical example of what I denominated some years ago, chancre *a distance*. This variety

I had occasion to elaborate upon some years ago.² No exact details were obtainable in this case beyond the fact that the patient was most probably infected by a prostitute who had mucous patches of the vagina and of the mouth.

Case 2.—A young man, aged twenty-four, occupation waiter, consulted me for a chancre on his prepuce, and in the course of the examination I found another chancre upon his right forefinger. He could give no details either in regard to the time of the incubation of the lesions or as to the probable manner in which the finger had been infected. He stated that he continually pressed the chancre with his right finger tip and then claimed that both the digital and preputial chancres appeared simultaneously. So that the entire history can be looked upon as incomplete and unsatisfactory. The chancres both had the cartilaginous induration and rapidly yielded to local treatment of bichloride solution applications.

Case 3.—This case was also one of double chancre in a young man, single, who was thirty years of age, and whose occupation was that of bricklayer. He confessed to me that he was of a very passionate nature, and when I first saw him he had a chancre on the upper part of the prepuce and one on the upper portion of his left upper lip. Here the chancre was large, and encroached quite markedly upon the vermillion of the lip. The induration in both chancres was marked and of the cartilaginous form. As in case 2, the submaxillary and inguinal adenitis was well marked. In fact, there

could exist no doubt as to the nature of the lesions. The history was also very unsatisfactory in this case, and confrontation was impossible.

Case 4.—A young married woman of twenty-four, whose husband I was treating for syphilis, was brought to me by him. She presented a chancre of the size of a five-cent nickel piece on the mucous membrane of the lower right lip. In this case there was a more satisfactory history than in many of the others, although it was deficient in the fact that no exact dates could be given. The man, who had mucous patches of the tongue, lips and mouth, stated that he had frequently kissed his wife, and that there is no doubt that this was the cause of her infection, for his penis was free of any lesions and she presented none of her genitalia. She subsequently developed a secondary eruption in the form of a roseola, shortly followed by a small, papular syphilide, which rapidly gave way under the influence of protiodide of mercury.

Case 5.—A young unmarried woman of twenty-five, without any occupation, came to see me on account of an intractable sore throat which no one seemed to be able to treat satisfactorily. I found, upon interrogation, that she was the mistress of a man who I knew had contracted syphilis. The patient did not present any marked eruption, but complained of painful enlarged lymphatic ganglia on the right side of the neck, which interfered very much with deglutition, even of liquids. Upon examining her throat, I found a chancre upon the right side of the pharynx directly posterior to the pillar of the fauces. The chancre was about an inch long

2. Double chancre a distance, St. Louis Medical and Surgical Journal, July, 1892.

and a little less than half an inch wide. It was not sensitive to a direct touch, but such action awakened a reflex cough. The mucosa was markedly congested and the induration was very perceptible. The edges of the chancre were sharp cut and distinct and projected above the level of the mucous membrane. Under internal and local mercurial treatment rapid amelioration set in, and treatment was soon discontinued by the patient. There could be elicited no explanation from the patient in regard to the manner in which the infection occurred, and it will probably always remain unexplained.

Case 6.—This case was a male infant of nine months, whose mother was referred to me by a physician. The mother could only make the one statement, that she had observed a "sore" upon the child's buttock, and had tried some home remedies upon it without success. The same results obtained with all the methods suggested by women friends and neighbors. She then determined to consult a physician, and he, not recognizing the nature of the lesion, had the same want of success in his treatment. It was then that he referred the case to me. When presented there existed upon the right buttock a crustaceous lesion, circular in shape, about one and a half inches in diameter. There was marked induration about its periphery and at the base. It was not painful, and its general appearance suggested a chancre. The child was pale and anemic, and a general condition of malnutrition was present. A slight maculo-papular eruption could be seen upon the abdomen and chest.

Under these circumstances the diagnosis of chancre was made and mercurial inunctions ordered. The child immediately began to improve; it took kindly to the bottle, and in a few months it presented the picture of health. The mother never could explain the manner in which the infection could have occurred, despite all the suggestions that were made. She herself was not syphilitic, nor was her husband, and the arm or cheek of a syphilitic bearing a lesion and coming in contact with the child's buttock was the only plausible explanation that suggested itself.

Case 7.—The patient was a young man, about twenty-four years of age, who was inclined to run after women. When referred to me by a physician, he presented a well marked chancre of the upper lip on the left side. He did not suspect the nature of his trouble until he was told what it was. No knowledge of the woman from whom it might have been contracted could be elicited from him. In fact, he claimed complete ignorance, and he had no reason for this, for he placed himself under treatment directly he was informed of the nature of his trouble. He had marked induration of the lymphatic glands of the left side of his throat and neck, and in a very short time he showed a small papular syphilide. He acknowledged to kissing, but denied having been bitten, and no other possible cause but the former could be invoked. As in the case of a large number of extra-genital chancres, it was not possible to assign any definite cause for the infection beyond a reasonable surmise, which in all probability was

the true explanation of the manner in which the infective inoculation had taken place.

Case 8.—This was a case which was most interesting. The patient, a single man of forty-five years, pleaded guilty of having taken into his mouth the tongue of a woman with whom he had sexual intercourse. At the time he presented himself he had a large, markedly indurated chancre under the undersurface of the tongue, on the right side. The lymphatic glands of that side were markedly enlarged and indurated. So great was this enlargement that the deglutition of solid food was an impossibility. At this time pressure upon the glands to the tongue elicited no pain. The patient was very actively treated with mercurials locally and internally, and for a certain length of time there was apparent improvement. After this pain of a very marked character was felt, the tongue enlarged very much and speech was an impossibility. A thorough examination revealed the fact that carcinoma had declared itself, and it ravaged the tissues in a very destructive manner. The malignant process was the precursor of the patient's death. I will not discuss the engrafting of a carcinomatous process upon syphilitic tissues in this place, but reserve it for some future paper.

Case 9.—This case was that of a physician, forty-six years of age, married, who had a lesion on the right forefinger which he had mistaken for an x-ray burn. He found it to be very intractable to treatment, and at first attributed this to the supposed nature of the lesion. As is well known, burns produced by the Roentgen ray are stubborn to the

generally accepted modes of treatment for burns. The lesion which had caused him so much trouble was a rather large, fungating chancre. The induration was well marked and some pain upon pressure existed. This latter was no doubt due to the treatment which had been used, including as it did, poulticing and strong antiseptics, not mercurial in nature. When the diagnosis was announced the patient refused to accept it, as he could not recall a circumstance connected with a possible infection. And yet there was marked induration of the lymphatic ganglia of the arm and axilla. The patient felt convinced finally when a maculopustular syphilide made its appearance upon his chest, and shortly afterwards involved his arms, back and thighs. Energetic treatment prevented the appearance of any more syphilides.

Case 10.—This case was that of another physician, single, and thirty-four years old. He is enthusiastic in the practice of gynecology and has always argued in favor of digital examination in the diagnosis of the diseased uterus as against the use of the vaginal speculum. He presented himself with a well marked chancre of the right forefinger. He immediately referred this accident to a certain one of his patients whom he had examined by the digital method, and subsequently found to be syphilitic. The chancre in his case was a dry, crustaceous lesion, without pain, but persistent. The lymphatic glands of the arm and of the axilla presented a classic induration, and the patient immediately recognized the exactness of the diagnosis. A very slight

eruption appeared shortly afterward and promptly yielded to treatment.

Case 11.—This case was that of a young unmarried man of twenty-two. He was referred to me by a physician who had made a correct diagnosis. Previously to that the patient had been treated for epithelioma, the primary lesion having been mistaken for a malignant one. When seen by the writer he had a typical chancre of the upper lip, on the left side. He very frankly acknowledged that he thought he had been infected by a kiss. The accompanying adenitis was marked and easily defined. At the time of examination there existed confirmatory signs in the shape of mucous patches of the buccal cavity and a slight papular syphilide of the chest. The patient readily yielded to treatment, and there was a rapid disappearance of all objective signs.

Case 12.—This case is one in which the patient could give a pretty fair history. He was a young German, not very long in this country, and without money or occupation. Being unmarried and about twenty-three years of age, he fell an easy victim to the wiles of a prostitute. He was not content with sexual intercourse, but sought to satisfy his libidinous desires still further by inserting his finger in her vagina. When examined he presented a chancre of the glans, located on the left side, and in addition a primary lesion on the right index finger, on the radial side and implicating the distal phalanx. The induration was marked and there was a fungating tendency about the lesion.

Case 13.—This was a Russian of thirty-three, a teamster by occupation. His parents were Russians and

he gave a good family history. Upon being interrogated, he stated that he had the habit of introducing his finger into the vagina of a woman with whom he had frequent intercourse. The sore of which he complained first appeared at the distal joint of his right forefinger. The patient described it as a white spot which felt like a bullet set in the skin. It broke out at the second joint on the palmar surface of the finger and spread over the whole finger. There was no very marked induration of the chancre, it being of the parchment variety in the distal phalanx. That on the palmar surface had a cartilaginous induration, and the case was really one of double chancre of the finger. So far as involvement of the lymphatic glands was concerned, there was a marked induration of the right epitrochlear gland, but none of the other lymphatic ganglia. This case is sufficiently interesting to receive independent treatment in a paper especially devoted to it.

Case 14.—This was an unmarried female, eighteen years old, who is stout and physically strong. She lived at home with her parents. Her father evidently acquired syphilis, as her brother, several years her junior, had prenatal syphilis. The patient under consideration, as well as two older sisters, were born before the father had syphilis. They are both healthy and non-luetic. The patient under consideration, when seen, complained of headache and sore throat, as well as of an eruption. On examination there was found a chancre in the center of the upper lip, accompanied by double submaxillary ade-

nitis. A papulo-pustular eruption existed on the face, as well as on the body, arms and thighs. The other lymphatic glands which were indurated, in addition to those mentioned, were the cervical, pre-auriculars and both epitrochlear. Efforts to arrive at a clear history of the manner of infection only resulted in an inferential conclusion. By dint of questioning the avowal was made that she had been kissed on several occasions by a young man who, from the description furnished, was syphilitic.

Case 15.—The patient was a single young man of twenty-four, a Jew, who presented himself with a chancre of the upper lip, very near the center. The induration in the lesion was a marked one, although not to the extent of being cartilaginous. He stated that the woman from whom he had most probably derived the infection had been repeatedly kissed by him and complained of having a sore mouth. This would certainly be sufficient to establish the origin of the chancre. The submaxillary glands were indurated and the pre-auricular on one side. In addition to this, there existed a rather discrete small papular syphilide on the chest. The remainder of the integument was clear of any eruption. Some headache and a few slight pains in the joints existed.

ANALYSIS.

If we take all the cases which have been reported they can be easily tabulated as follows:

Chancre of lip alone.....	8
Chancre of lip and glans.....	2
Chancre of finger.....	1
Chancre of buttock.....	1
Chancre of pharynx.....	1

—15

From this we find that the location of the majority of these extra-genital chancres was the lip. Another interesting circumstance in connection with this is that it was the upper lip that was involved. In fact, it seems to be the universal experience of all syphilographers to observe the large majority of extra-genital chancres on the lip. In the present small series it was always the upper lip that was the seat of the chancre.

Next in order of frequency was the finger. Here, in the present list of cases, it was the right index that was involved, and in all of the cases there was not a simple, single chancre. An interesting case is that in which two chancres were found involving the finger.

In two instances unusual locations were each one the site of the primary lesion. One was the pharynx, which is comparatively unusual, but not rare. The other was that in which the buttock was the portion on which a chancre was observed. This is certainly a very unusual location, and there are but very few cases on record. Those who have devoted much time to the collection of histories of extra-genital chancres in many instances do not mention this location.

A circumstance which should be noted is that in every instance there existed corroborative signs, making the diagnosis a certain one. So many errors are liable to be made in the diagnosis of the chancre that all such evidence must be sought in order to make an expression of opinion certain and beyond all doubt. This was done in all of the cases detailed above, and cases of chancre redux were very carefully eliminated.

One very interesting point in connection with these cases is that there were found five cases of double chancre *a distance*. This is a rather uncommon condition and the finding of this variety in one-third of the total number of cases of extra-genital chancres observed is, to say the least, rather surprising. In fact, it would lead to the thought that this is a comparatively frequent occurrence. And, yet, syphilographers either omit all mention of this form, merely mention it, or have but one or two cases to briefly report. Another very unusual case given above is that of two concurrent chancres of a finger, one on the dorsal and the other on the palmar side. This form of infection has not been spoken of by writers on syphilis, to any noticeable degree.

To refer to the deontology of the cases reported, it was found that five cases were examples of syphilis insontium, or syphilis of the innocent. Two chancres of the lip were acquired innocently and were in females. Two of the finger occurred on the fore-

finger in physicians who were accidentally inoculated by patients. One of the buttock was in an infant who was inoculated in an unknown manner. The other ten cases were infected through sexual intercourse and were simply unexpected reminders of libidinous passion on the part of their carriers. So that we are led to the conclusion that only one-third of the cases were innocent and the remaining two-thirds were due to depravity. In a former series of twenty-five cases which I reported³ there were 48 per cent. (12 cases), a smaller percentage than in the present.

The reporting of these cases has not been made with the intention of adding to the long list of medical curiosities, but rather to call attention to the fact that chancres not only exist in unexpected localities, but that when a case of recently developed syphilis is seen diligent search should be made for the chancre and it should be found. If the writer has succeeded in doing this, a part of his object has been attained.

3. Lve. cit.

— JOURNAL —

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EDITORIAL.

NO FUNDS FOR MISSOURI MEDICAL EXHIBIT.

According to the report of expenditures of the Missouri Commission, as reported in the *Republic* of July 24th, \$51,212.76 is charged to the Educational Department. There is no detailed report as to the ratio assigned to the different departments

of education. This much, however, is certain—that no part of the fund was assigned to medical education.

Missouri has fifteen medical colleges, with an average attendance of 2,340 students. There are 6,314 physicians in Missouri, according to the census of 1900. These physicians are an important factor in the intellectual

life of our state and they are interested in education, general as well as medical.

We observe from the distribution of expenditures that the farmers have not been neglected, the fruit growers have been looked after, the dairy-maids have had \$7,091.23 expended upon their department—but the physicians were refused a thousand dollars wherewith to exploit to the visitors to the Fair what Missouri is doing by way of medical education.

By the side of the exhibit which the physicians of Missouri are making and paying for out of their own pockets is the exhibit of a single medical college of Chicago which outranks it in every respect, and for which the state of Illinois is furnishing the funds.

The one potent argument with the politicians can be used at the coming election. Do not vote for a candidate for office that does not evince intelligence enough to understand that medicine and hygiene are entitled to the state's fostering care, and who does not promise to give his assistance in carrying out the demands of the profession.

METHOD OF INCREASE OF RED BLOOD CORPUSCLES.

Muscular effort (according to experiments made by Hawk) in all cases directly increase the number of globules, both red and white. The marked addition following a few minutes of exercise has stimulated investigation of the method of increase. The hypothesis, according to which the increase is due to a multiplication of

cells, seems improbable when we consider the fact that a considerable increase may require only a fraction of a minute. The same reasoning seems to disprove the theory of concentration of blood due to transpiration through the skin or lungs. Hawk adopts a third hypothesis—that the increase is due to the penetration into the blood of numerous globules which, in a state of rest, remain in different parts of the body outside the blood current, or at any rate, immobilized in certain organs. The increase of globules due to exercise would, under these conditions, be only apparent. There would be no real increase. On the other hand, Hawk's experiments seem to show that muscular exercise really results in destruction of red globules, which may be noticed only after a certain time following the disappearance of the various effects—indicating an increase.

MEDICAL HISTORY.

With the July number of the JOURNAL began the publication of photographs and biographies of men who have been foremost in the world of medicine. Each issue will present two half-tones, and during the year biographical sketches of the following will appear: Andreas Vesalius, Ambroise Pare, William Harvey, John Hunter, Edward Jenner, Rudolph Virchow, Bernhard von Langenbeck, Theodor Billroth, Sir Astley Cooper, Benjamin Rush, George B. Wood, Robert Dunglison, Austin Flint, John Ray, Ephraim McDowell, S. D. Gross, J. Marion Sims, D. Hayes Agnew and Lord Lister.

THE SPIRIT AND POWER OF OUR PROFESSION.

A great many wise and practical things have been said and written about the more perfect organization of the medical profession of this country.

The spirit of organization seems to be brooding over us and the mist and chaos of four and five years ago begins to take on shape and form of a body whose spirit and power shall direct many of the policies of this government. We spend much time, money and thought upon the political questions of the day, while we neglect the more weighty matters of the health and social conditions of our country. We often complain of the helplessness of our professions to correct certain evils or to pass certain laws or to enforce those already on the statute books. Who is to blame for this? To the thoughtful and observing man, the responsibility is easily and correctly placed. We, ourselves, are to blame, and we but play the baby act when we try to place it upon the politician or anyone else. Go into any political convention, whether it is democratic or republican, in any county of this state and the chances are more than even that you will find a liberal sprinkling of doctors in it, and they are running the convention. I have been a voter for over thirty years, and live in a county that is overwhelmingly democratic, and for forty years the doctors of this county have furnished four out of five of all the chairmen of the democratic county central committee.

My county is about fifty miles long and twenty-five miles wide, and there is not a section that is six miles

square but what there is a doctor in it. They go into every home in the county and they have the confidence of the people as no other class of men have. In this county, a few years ago, we had a practical illustration as to what these doctors could do by getting together. We agreed that we would elect a certain man to the legislature. When the politicians and would-be political bosses heard of our intentions, they laughed at us and said we were feeble-minded and should be taken in out of the wet. But ere the race was half run they were coming to us and in their patronizing way offering us advice as to how to win, and a little later on they came around and said if there was anything that they could do they would be glad to help us, but unfortunately for them, we had left nothing undone, and as the boys say, "our man won in a gallop." What we did in that year can be repeated in every county in this state. We are many bodies, but there should be but one spirit. In the unity of this spirit there is power. Power to cleanse our own ranks; power to utterly destroy, root and branch, charlatanism, quackery and medical fakes of all kinds. Power to pass health laws; power to create boards of health and to enforce their regulations, and thus to insure to the people of this great commonwealth a greater measure of health and happiness.

The mission of this journal is to unify this spirit and organize a society in every county in this state where there is no such organization, and to help those that are already organized. The county society is the unit of our organization. If the members of the county societies will assert

themselves, they can control the state and national association. This journal belongs to the affiliated medical societies of this state. You have a right to be heard in its columns. The spirit and power of our profession rests with the county societies. No stream is higher than its source. A great opportunity has come to us, full of responsibilities and possibilities. Let us arise to the occasion.

W. M.

THE MEDICAL COLLEGE.

The many sided question as to what constitutes the best medical college should interest not only the medical teacher, but the profession at large. It is assumed that every one interested in medical education desires a solution of this question, for the welfare of our profession largely rests upon its final conclusion.

A primary answer would be, that college giving the best four years' graded course of instruction, both didactic and clinical, with complete laboratory demonstrations, is the best college. A rejoinder to this is that all self-respecting colleges claim to do this. But it is claimed that all cannot be equally good. Some are lacking in equipment and teaching ability. Some colleges are too young and inexperienced. Others have grown old without the employment of modern methods, and are, therefore, effete. A fair statement in reference to these two extremes is that the enthusiasm of youth does not imply wisdom or the dignity of age alone furnish unerring judgment. It is possible that a school combining the best elements in the new and old schools would more nearly approach the ideal, for we must rec-

ognize the merit in young energy and the stability of experience that comes with age.

It might be asked what constitutes the best teaching faculty, the paid or voluntary corps of teachers? Does the paid teacher, selected solely on account of his ability without the incentive that spurs the voluntary teacher of ability to put forth his best effort, do as good work?

Has he the interest in his classes, or can he inspire that feeling of mutual interest between teachers and students which is so desirable and essential to successful teaching? It is claimed that there are too many medical colleges, that the aspirations of medical men have led to this establishment out of proportion to the demand for them. Without desiring to be in the least critical, a hearty approval of this proposition may be granted.

As a parallel to the foregoing, it is further claimed that too many medical students are turned loose upon an unoffending people each year. This is a debatable question. In the first place, vast domains of heretofore unsettled country are annually being settled by our own and immigrant population. These people must have physicians, and to them the young and vigorous doctor must go. The field is good for his development. and who can say that from just such locations there have not come some of the best practitioners this country has produced? Indeed, if he has the gray matter, is conscientious and studious, his opportunities are auspicious. The difficulties he must encounter and the obstacles he must overcome in a new country will make him strong in his

isolation, will develop his resources and make him self-reliant. These are trying times for medical colleges. In the prevailing desire to advance a standard of medical education, which all must commend, there has come an outcry for a better preliminary education on the part of the medical college matriculant. While all must applaud this demand, a judicious conservatism should be exercised. Injustice should not be done the great majority of medical colleges by an abrupt transition from present requirements of at least a high school diploma to a college or university degree as a minimum. To those who have watched the trend of our National Medical Association it must be apparent that there is a disposition to so rapidly advance the standard of entrance requirements to medical colleges as to harmfully discriminate against schools not sustained by the liberal endowment or state patronage. It is to be regretted that the representation of these latter are loudest in contending for the college degree requirement. It is not uncharitable to conclude that the sense of financial security has something to do with their excessive demands.

Instances might be pointed out where a sudden and tumultuous transition has taken place in schools recently attached to great universities. This is not mentioned so much in a spirit of criticism as to indicate a little touch of human nature, a weakness common to mortals. Added to the foregoing may be mentioned the arbitrary and often mandatory action of many state boards of health which often assume (possibly with the best

intentions) to so regulate the entrance and professional requirements of students and graduates in excess of that demanded by our best colleges. That the standard should be gradually raised all must agree, but in justice to medical colleges and students this should be reached in such a way as not to be prohibitive to the financially weaker schools.

For these troubles that beset so many medical schools and the preparation for the ultimate change which is inevitable there can be but one remedy, viz., a coalescence of the smaller and unendowed medical colleges. This would result in larger classes, and the question arises, would this be best for the student? Would he get as good instruction, especially clinical, as in the smaller schools? Yes, provided the union of the several schools was perfected upon a broad and unselfish basis. Along with increased resources and equipment should come lengthened school term to at least eight and possibly nine months and a greater number of teachers in each department, making it possible to divide the students in smaller classes and bring them into a closer contact with the teacher and the clinical patient.

Then would all medical schools be self-sustaining without the necessity of the slightest tendency of commercialism. Then would arise a commendable spirit of rivalry between the endowed medical colleges, with their paid teachers, and the independent schools, with their voluntary faculties. Then may the answer come to the question "what constitutes the best medical college?" C. L. H.

COUNTY SOCIETY NOTES.

PUTNAM COUNTY MEDICAL SOCIETY.

Dr. I. F. Noel, President.
 Dr. C. H. Carryer, Vice-President.
 Dr. J. H. Holman, Secretary.
 Dr. A. D. Ellis, Treasurer.
 Dr. L. L. Gray, Delegate.

Putnam County Medical Society met July 6th, at Unionville, President I. F. Noel in the chair. Dr. W. A. Berry was elected to membership. The prosecution of the case against one J. L. McElheiney, an Osteopath, for the illegal practice of medicine, was discussed, and a motion made and carried to consult the prosecuting attorney about employing additional lawyer or lawyers to push the case. All papers were held over on account of the time consumed by the above discussion. Adjourned to meet in extra session in two weeks to take final action on the above case.

The regular meeting of the Putnam County Medical Society was held on the first Wednesday, August 3d. Minutes of preceding meeting were read and approved. The entire time of the society was occupied in devising means for prosecuting J. L. McElheiney, a so-called osteopath, for the illegal practice of medicine.

McElheiney is a registered osteopath, but there are more than twenty-five persons who are ready to make affidavit to the fact that he uses medicines either by the mouth or hypodermically. His contention is that he uses medicine not to cure, but merely to control symptoms. The Putnam County Medical Society feels that one

of the duties of the state board of health should be to conduct prosecution against persons practicing medicine without a license. Since nothing is to be hoped for from that direction it seems as though at the next meeting of the State Medical Association the house of delegates should authorize the expenditure of an amount of money sufficient to prosecute these cases in any part of the state in which they may arise.

J. A. TOWNSEND, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. A. S. Herndon, President.
 Dr. R. P. Davis, Vice-President.
 Dr. G. C. Coffey, Secretary,
 Dr. J. A. Baldwin, Treasurer.
 Dr. S. Redmond, Delegate.

The Platte County Medical Society met July 13th in the office of Dr. S. Redman, at Platte City, Dr. C. H. Chastaine in the chair.

Dr. J. W. Winn read a paper on impetigo contagiosa, in which he laid particular stress on the differential diagnosis, especially from varicella, with which it may readily be confounded by those not thoroughly versed in skin diseases. The treatment advised consists in the destruction of the autoinoculable properties of the crusts and contents of the lesions. The paper was followed by much interesting discussion.

Dr. S. Redman, delegate to the state association, made his report of the annual meeting, which was favorably received. The society adjourned to meet the first Wednesday in August.

The Platte County Medical Society met in regular monthly session at Platte City, August 3d, Dr. A. S. Herndon presiding. The minutes of the previous meeting were read and approved.

Dr. C. H. Chastaine read a paper entitled, "The Society as a Unit," in which he strongly urged the individual members to be ethical in all their dealings, and to consider well the good of the society.

Dr. R. P. Davis read a paper in which he set forth the necessity of adopting a fee table. The action of county courts in cutting down physicians' bills for county work was strongly condemned. The discussion which followed led on to the subject of collection of bills, and many interesting experiences were related.

The resignation of Dr. J. A. Baldwin as treasurer of the society was presented and accepted, the president appointing the secretary to act as treasurer until the next fiscal election.

The society adjourned to meet in Weston; Wednesday, September 7th.

DR. G. C. COFFEY, Reporter.

CASS COUNTY MEDICAL SOCIETY.

Dr. T. W. Adair, President.

Dr. R. D. Ramey, Vice-President.

Dr. J. S. Triplett, Secretary-Treasurer.

Dr. M. P. Overholser, Delegate.

The seventh quarterly meeting of the Cass County Medical Society will be held at Harrisonville, Mo., September 1st. Special efforts have been taken to make this the most interesting meeting since the organization of the society. The papers are timely, instructive and interesting. A new feature in the way of a *quiz* on some

important subject for each meeting has been added to the program. The increasing interest in the scientific work is plainly evidenced at each meeting by the discussions becoming more lively, practical and instructive.

PROGRAM.

1. Paper—"What Should We Prescribe?" by R. P. Walker.

2. Paper—"Diarrhea of Children," by T. W. Adair.

3. Paper—"Choice and Administration of Anesthetics," by J. P. McCann.

4. Paper—"Cholera Infantum," by W. F. Chaffin.

5. *Quiz*, by J. S. Triplett: Subjects—Anatomy of the Lungs; Mensuration: Types of Respiration; Dyspnea; Vocal Fremitus.

The following have not announced the titles of their subjects: F. R. Morley, J. S. Brown, W. C. Palmer, A. R. Elder, H. Jerard, A. D. Farnsworth and J. S. Strother.

J. S. TRIPLETT, Reporter,

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.

Dr. Harry Tatum, Vice President.

Dr. C. A. Jennings, Secretary-Treasurer.

Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society met in regular session at Salisbury, July 28, 1904, Dr. M. B. Austin presiding. The time of meeting was changed from 1 o'clock P. M. to 8:30 P. M.

Dr. Epperly, of Prairie Hill, a guest of the society, was invited to participate in the discussions. The doctor reported an interesting case of impaction with acute appendicitis. His

treatment of the case met with general approval.

At the next regular meeting, which will be held at Salisbury August 25th, Dr. McAdams, of Prairie Hill, will read a paper on "Uniform Medical Fees." Dr. Kirkpatrick, of Dalton, will also present a paper, subject to be announced.

W. L. BAKER, Reporter.

GRUNDY COUNTY MEDICAL SOCIETY.

Dr. J. A. Asher, President.

Dr. W. E. Allen, Vice-President.

Dr. W. D. Fulkerson, Secretary.

Grundy County Medical Society met at Trenton, July 19th, President Dr. J. A. Asher in the chair. Minutes of preceding meeting read and approved. There being no scientific programme, reports of interesting cases were made by different members, a free discussion following, made a very interesting and instructive meeting.

EVENETT ALLEN, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. R. D. Moore, President

Dr. Howard Carter, Vice-President.

Dr. H. G. Wyer, Secretary.

Dr. N. N. Jensen, Treasurer.

Dr. W. H. Wyer, Delegate.

The last meeting of the St. Louis County Medical Society was held at Clayton, June 8th, at 2 o'clock when it was voted to omit the July and August meeting. Dr. A. H. Meisenbach, of St. Louis, gave the society a very timely talk on "Fourth of July Injuries." Lunch was served after adjournment. The next meeting is

scheduled for Wednesday, September 14th, at 2 P. M.

H. G. WYER, Reporter.

RAY COUNTY MEDICAL SOCIETY.

Dr. Chas. B. Shotwell, President.

Dr. J. M. Griffin, First Vice-President.

Dr. E. H. Musson, Second Vice-President.

Dr. L. D. Greene, Secretary.

Dr. E. T. McGaw, Corresponding Secretary.

Dr. C. C. Crowley, Treasurer.

Ray County Medical Society met in regular session at Richmond, July 20th, to elect officers for the ensuing year. The election resulted as follows: Chas. B. Shotwell, President; J. M. Griffin, First Vice-President; E. H. Musson, Second Vice-President; L. D. Greene, Secretary; E. T. McGaw, Corresponding Secretary; C. C. Crowley, Treasurer.

CLAY COUNTY MEDICAL SOCIETY.

Dr. L. J. Jones, President.

Dr. John J. Rice, Vice-President.

Dr. F. H. Matthews, Secretary.

Dr. J. H. Rothwell, Treasurer.

Dr. H. Rowell, Delegate.

The Clay County Medical Society held a very interesting session at Excelsior Springs, Monday, July 25, 1904, with Dr. John J. Rice, Vice-President, in the chair. The following members were present: Drs. T. N. Bogart, Ernest Lowrey, W. S. Wallace, Frank Lightfoot, J. T. Rice, J. M. Allen, F. H. Matthews, C. Atkins, A. B. Ralph, W. L. Wysong, H. A. Cox, J. J. Rice, Geo. McCulloch. This meeting was held in Excelsior Springs at the invitation of its members residing there and the society was well entertained by them at the Excelsior Club.

The following programme was presented, each paper being freely discussed: "Dysentery," Dr. John J. Rice; "Antiseptic Treatment of Typhoid Fever," Dr. Frank Lightfoot; "Symposium on Chronic Kidney Disease," opened by Dr. J. M. Allen; "Differential Diagnosis and Treatment of Organic Heart Disease," by Dr. C. Atkins; "Ilio Colitis," by Dr. W. S. Wallace; "Report of Case of Resection of Hip Joint," by Dr. Ernest Lowrey; "Chronic Bright's Disease," by Dr. T. N. Bogart.

The Committee of Arrangements to provide for entertainment of the State Medical Society, which meets in Excelsior Springs in 1905 met and organized as follows: Dr. T. N. Bogart, Chairman; Dr. J. T. Rice, Secretary. The committee is composed of the following members of the Clay County Medical Society: Drs. L. J. Jones, J. M. Allen, J. H. Rothwell, F. H. Matthews, C. Atkins, W. L. Wysong, John J. Rice, J. T. Rice, Ernest Lowrey, T. N. Bogart.

The Clay County Medical Society was organized in 1854, the membership includes nearly the entire regular profession of the county, the meetings which are held regularly in Liberty on the last Monday in each month are characterized by a large attendance. They are interesting and original.

F. H. MATTHEWS,

Reporter.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. Wm. Carson, President.

Dr. J. D. Smith, Vice-President.

Dr. L. W. Dallas, Secretary-Treasurer.

Dr. Wm. Carson, Delegate.

The Shelby County Medical Society met in the office of Dr. H. C. Vaug-

han, at Shelbina. Owing to the absence of the president Dr. Vaughan presided. The subject of the evening was the "Hawley Lymph Treatment." There were no direct reports of cases so treated by any of the physicians present, but after the fullest discussion it was the unanimous opinion of those present that the "lymph" is little short of a fake.

It was argued that the manner of its preparation is not known by those who use it.

None of the physicians who took part in the discussion had ever known of any permanent results following its use.

The cost is largely beyond the reach of the average man.

Some present knew of brother physicians who had used it and had been disappointed in its results, or, rather, lack of good results.

It was considered impossible to so prepare a fluid of that kind that it would be certainly assimilated as a tonic or food.

It was also thought that the few cases of temporary improvement which had been reported were psychological rather than physiological. We will report further as those of the society who have used it bring in reports.

At our next meeting the committee which was appointed to consider the advisability of adopting a county fee bill will make its report. The discussion of this subject and the report of cases will probably occupy the time.

Our next meeting will be held in the office of Dr. H. C. Vaughan, Shelbina, on September 22 (Thursday), at 8 o'clock P. M.

L. W. DALLAS, Reporter.

ABSTRACTS.

Recent Researches in Cancer.—By Dr. James Miller (*Birmingham Medical Review*, June, 1904, p. 379).—For some time past investigators in this field have been directing their attention chiefly to the question as to whether some living organism is or is not the cause of cancer. Starting from analogy with diseases such as coccidiosis in the rabbit, where we have the presence of one of the sporozoa giving rise to the formation of papillomatous growths within dilated bile ducts, investigators have attempted to show that similar organisms are present in cancerous cells. Thus, sporozoa of various kinds, yeasts, psorosperms and bacteria have all been described as occurring within the cancer cell. Many of these observations have been proved to have been incorrect.

Stiles (*Liverpool Med.-Chir. Jour.*, October, 1902) has shown that at least some of these bodies are simply cell degenerations. So that at the present time one may say that there is no one organism that is even probably causally related to the cancerous process.

Progress has, however, been made in other directions. It has been shown that certain malignant tumors are definitely inoculable. Jensen (*Cbl. f. Bact.*, 1904, p. 32) has found such a tumor in white mice. He inoculated minute portions of this tumor, which was an adeno-carcinoma, into the subcutaneous tissue of a large number of other white mice. About 834 have in this way been inoculated; of these, 232 died in the course of the first fourteen days; of the others, 249 developed tumors which reached in some cases a very

large size. The method of inoculation was either to mince a small portion of the tumor in a mortar, suspend it in normal saline solution, and then inject it, or simply to insert a piece of the tumor under the skin.

The course of the disease following injection was practically always the same. The portion of tumor introduced disappeared in a few days' time. After about fourteen days a nodule could be felt. This grew in the space of two or three weeks to the size of a pea or even of a bean. Ultimately, after some months, the tumor might be the size of the mouse itself. In some cases the presence of the tumor appeared to produce little effect, in other cases there was loss of weight.

The tumor was also inoculated in the grey house mouse. At first only an occasional animal became affected, but subsequently inoculation from one of these animals produced the tumor more easily.

A series of observations were made in order to establish the fate of the piece of tumor introduced—whether it itself grew, or whether it incited tissues around it to grow. There was no difficulty in demonstrating that the greater part of the piece underwent progressive destruction, but that groups of cells remained which, after a week or so, began to grow and multiply again, and that these cells reproduced the structure of the original tumor. Nothing in the least suggestive of any form of parasite was found. These results have been confirmed by Bashford and Murray (*Lancet*, February 13th).

It might have been thought that the careful observation of cancer cells

during the last few decades, under high powers of the microscope, would have discovered all that there was to find out as regards the minute structure of these cells, and their behavior when undergoing division. But that this is not the case, the discoveries of the last few months have shown.

When a cell undergoes indirect or mitotic division, its nucleus passes through a series of definite and fairly constant changes. The chromatin substance of the nucleus increases in staining power, it loses its net-like arrangement, and finally gives rise to a definite number of separate, intensely staining bodies, known as chromosomes. These chromosomes vary in number in different species of plants and animals. In man the number is stated to be 32; in the mouse, the trout and the lily it is 24; in the shark 36, and so on.

While this differentiation of the chromatin into chromosomes is going on, what is known as the amphiaster is formed. This consists of a series of fibres forming a spindle radiating from two bodies called centrosomes. At first the chromosomes group themselves in a plane passing through the equator of the spindle, thus forming what is known as the equatorial plate. The next change is that each chromosome splits lengthwise into exactly similar halves. These halves separate and pass to opposite poles of the spindle, and each group of these daughter-chromosomes gives rise to a daughter-nucleus. Subsequently the protoplasm of the cell divides, and thus two new cells arise.

The above series of changes was found to hold good for the vast ma-

jority of the cells of an animal when undergoing mitotic division. It was, however, noticed that the conjugating germ cells—the spermatozoon and the ovum—each contained one half the number of chromosomes characteristic of the body cells. On further examination it was found that this reduction in the number of chromosomes took place in animals during the course of the last two cell divisions previous to the formation of the true germ cells of gametes. Each of the four cells thus formed during the period of preparation for fertilization or maturation, as it is called, has only half the usual number of chromosomes. In the female only one of the four cells goes to form the ovum proper; the other three form what are known as the polar bodies, which are thrown out. In the male all four become functional spermatozoa. The process of reduction is apparently a provision to keep the number of chromosomes characteristic for any given species constant, because if it did not occur the number would be doubled at each subsequent fertilization.

These series of mitotic divisions which occur during the process of maturation, and which are characterized by this reduction to half the usual number of chromosomes, are known as heterotype mitoses, whereas the ordinary forms of nuclear division which occur when all the other cells of the body multiply are known as somatic or homotype mitoses.

The reduction in number is apparently affected by a fusion together of chromosomes, and the somatic type is re-established by the chromo-

somes of the male and female gametes not fusing with each other, but remaining separate.

There is, however, a further difference between the homotype and the heterotype forms of mitotic division; in the former the chromosomes are either rod-shaped or V-shaped; in the latter they are in the form of rings or loops, so that is possible to state whether a given mitotic figure is homotype or heterotype by the appearance of its chromosomes as well as by their number,

Now, while what has been stated holds good for plants as well as animals, certain further facts were observed by botanists which throw light upon the meaning of the whole process.

Strasburger found that in the ferns all the cells of the prothallus or sexual generation; from the original spore-mother cell onwards to the formation of the germ cells, have only one-half the number of chromosomes found in the fern plant or asexual generation; in *Osmunda*, for instance, the number is twelve instead of twenty-four. He found, further, that in the angiosperms the two maturation divisions are in both sexes followed by one or more divisions in which the reduced number persists. From this he concluded that the cells thus formed represent the vestiges of the sexual generation in the higher cryptogams, analogous to the prothallus of the ferns, that, in other words, an alternation of generations occurs in the higher plants as well as in the lower, although the sexual generation or gametophyte remains within the asexual or sporophyte. Strasburger further sug-

gested that this idea might be applied to the animal kingdom, "that the four cells arising by the division of the oogonium (egg cell and three polar bodies) represent the remains of a separate generation, now a mere remnant in the body in somewhat the same manner that the rudimentary prothallus of angiosperms is included in the embryo sac." (Wilson, "The Cell.")

A further point of interest is that Boveri, confirmed by Brauer, has shown that in parthenogenesis the second polar body plays the part of the sperm nucleus, and re-establishes the somatic number of chromosomes (*Ibid.*)

But to return to the question of cancer. In a paper read before the Royal Society on December 10, 1903, Farmer describes the results of researches carried out by him in collaboration with Messrs. Moore and Walker. These investigators observed that in malignant growths, in the cancer cells which are undergoing division, both the homotype and heterotype, mitoses might be seen. Near the margin of actively-growing malignant tumors, such as epitheliomata, the nuclei which are dividing usually exhibit mitosis typical of somatic cells (homotype). Also some abnormal forms of mitosis may be seen — *e. g.*, an excessive number of chromosomes, here and there pluripolar figures, or even absence of true mitosis and division without differentiation of the chromatin of the nucleus into chromosomes. "But in spite of these facts, the heterotype divisions can be recognized with certainty in every malignant growth so far examined, and it is precisely similar in character

to the normal heterotype that occurs in the sexually-reproductive cell series. The same peculiarities in the early differentiation of the chromosomes culminating in the production of rings, loops, etc., the same reduction in the number, and the same transverse division of each one when attached to the spindle, reappear in these cells with the greatest uniformity." (*Farmer, Nature*, February 14, 1903).

This occurrence of heterotype mitosis seems to be confined to tumors of a malignant character. It has not been observed in any growth of a benign nature, nor has it been seen in the cell divisions which occur in inflammation and other pathological processes. According to the authors we have in this a means of distinguishing microscopically between simple and malignant tumors.

Bashford and Murray, in a paper communicated to the Royal Society by Rose Bradford, on January 21 (see *Lancet*, February 13, 1904), confirm Farmer's results. These authors have further investigated the question as to how far similar phenomena are characteristic of the malignant new growths occurring in animals. Their results with tumors from the trout, mouse and dog have been completely in accord with those of Farmer, Moore and Walker. "In the columnar cell carcinoma of the trout the phenomena were especially distinct, the small number of chromosomes, the striking contrast between the long, slender chromosomes of the somatic mitoses, and the rings of the heterotype division being of diagrammatic clearness. Homotype mitoses oc-

curred, but were few in number" (*Lancet*, January 13).

Now arises the question: What is the meaning of these peculiar forms of nuclear division as they occur in malignant growths? Their meaning, as they occur in the life cycle of the animal is still uncertain, therefore one can only theorize on the question.

Farmer gives his conclusions thus: "Just as the true gametes (sexual cells) may fuse, so, too, cases of nuclear fusion are not very uncommon in the post-heterotype cells of malignant growths. Fusion figures strongly recall instances of normal fertilization." It is not urged that the cancer cells are functionally active sexual elements, but rather that they are homologues with such. It has, therefore, been proposed to express this idea by applying the term gametoid to them (*Nature*, February 14th).

Farmer's suggestion is, therefore, that, as a result of the heterotype mitosis of cancer cells, new cells arise which may, by fusion with other similar cells become in a sense fertilized, their subsequent nuclear divisions being ordinary homotype or somatic forms. This reminds one somewhat of what is described as occurring in parthenogenesis.

Bashford and Murray conclude thus: "The cells which have undergone the reducing division are not responsible for the active invasion of the surrounding tissues, nor for the production of metastases; the cells dividing somatically are responsible for both. The number of heterotype mitoses may not stand in any relation to the degree of malignancy, and their absence is only presumptive evidence

of the benign character of the tumor. We postulate nothing as to the future of the cells which have undergone the reducing division, though we believe the latter to be a terminal phase in the life cycle of cancer cells, as it is in the history of sexual cells in animals. The local origin and the expansive and infiltrating growth of cancer in its relation to surrounding tissues, while respecting its own proper elements, is the criterion of its malignancy. This stamps it as belonging to a new cycle comparable in its entirety to the whole organism, which is invading, rather than to any one of its tissues, reproductive or otherwise" (note to report in *Lancet*.)

In this state of uncertainty one must leave the subject at present, but, although it has not led to any practical results as yet, the gametoid theory has given to cancer research a new stimulus, and one which it much needed, in a fresh direction.

Exposure to Flame Does Not Disinfect Surgical Instruments.—A report recently presented to the Societe de Chirurgie de Lyon (*La Presse Medicale*, April 2, 1904) shows that the exposure of surgical instruments to burning alcohol, a much-vaunted method of obtaining the antiseptis, is a failure. The experimenters placed in an enamelled basin virulent cultures (staphylococci, bacteria of charbon, bacilli of tetanus) and covered them with alcohol. The alcohol was lighted and the microbes exposed to the flame, but they were not destroyed, because, when they were afterwards sown, fine cultures were obtained. A similar result was obtained by Drs. Berard and Lumiere,

who, instead of exposing the cultures to burning alcohol, placed them in direct contact with a Bunsen burner. Another circumstance which particularly shows the inefficaciousness of sterilization by flame is that the micro-organisms resist the action of fire not only when they are protected by a layer of dried blood or pus, but also in cases in which they are directly exposed to flame without being protected by an organic coagulum. Hence, one can readily understand that in exposing to burning alcohol a hypodermic needle, which may contain saline or organic concretions, the resulting asepsis may be of a very imperfect character.—*Canadian Journal of Medicine and Surgery*.

Catgut, Claudius Method of Sterilizing.—Giannettasio (*Gazzetta degli Ospedali delle Cliniche*, February 7, 1904) recommends the method of sterilizing catgut which was recently introduced by Claudius, of Copenhagen. This method has been used with success in a large number of operations by Maiglioni and by Dalla Rosa, as well as by other surgeons. The strands of commercial catgut are wound in the usual way, loosely upon glass spools, and are immersed in the following solution: Iodine, 1 gramme; potassium iodide, 1 gramme; sterile distilled water, 100 grammes. This solution is kept in wide-mouthed bottles with glass stoppers, which can be boiled or sterilized by steam. The catgut is left in this solution for eight or ten days, during which time the receptacles must be carefully stopped to prevent evaporation of iodine. At the end of this time the catgut is ready for use. The spools are taken

out, when needed, by means of long forceps, and the excess of iodine is wiped off from the catgut by means of sterilized gauze. The catgut is then of a lustrous black color, and has all the properties of silk, being elastic, plastic and tied with great facility. The strength of this catgut is such that operations requiring commonly the larger numbers (from 3 to 5) may be performed with relatively small numbers (from 0 to 2). Catgut thus prepared is less quickly absorbed than the ordinary catgut, and is very useful for skin suture, in which the antiseptic action of the iodine guarantees against stitch abscess. The writer prefers to remove the excess of iodine from this catgut, before using it, by immersing it in an antiseptic solution.—*Monthly Cyclopaedia*, July, 1904.

Some Recent Observations Concerning Bacillary Dysentery.—In the history of epidemic diseases there is much said about dysentery, both in times of peace and times of war—especially, of course, in the latter. Naturally, it is difficult to tell at this time what special form of dysentery it may have concerned from time to time, although there is much to indicate that in many, if not in most instances, it probably was what we now understand as bacillary dysentery. While much further investigation is necessary before the etiology of all dysenteric diseases are fully understood, yet the definite recognition as the result of modern etiologic investigation of bacillary dysentery makes it possible to carry on etiologic and epidemiologic studies with greater precision and penetration than here-

tofore. Thus, Conradi's recent study of what he regards as a contact epidemic in Metz, in Alsace-Lorraine, appears to bring to light points of great interest in regard to the genesis and history of dysentery. In the course of two months there appeared in Metz and vicinity seventy cases of a mild form of bacillary dysentery. There were only three deaths. Conradi examined sixty cases bacteriologically, and in the feces of fifty-six he demonstrated the presence of virulent bacilli of the Shiga-Kruse type, which were agglutinated by immune dysenteric serum. He could find no bacilli in the blood or urine of these patients. In the clumps of bloody mucus of the early cases the bacilli were often present in pure culture; in older cases it was necessary to carefully wash the masses of mucus before cultures were made from their interior. Conradi succeeded in recovering bacilli from the feces in twenty-seven old cases, in the second to the fourth week after the attack, cases which, without the result of the examination of the feces, would have been regarded as healthy and free from all danger. Hence dysenteric patients may remain infective for one to four weeks, and perhaps longer, after an attack. Conradi also found dysenteric bacilli in the feces of five healthy children in Metz. These facts give us some idea of the manner in which the disease may be conveyed, and also of the difficulties in the way of its control. Anent this phase of the matter it is noteworthy that extensive epidemics of dysentery have been imported by the return home, for instance, of sailors with dysentery. An epidemic in Norway in 1859 has been traced

definitely to the return of a sailor who had been treated for dysentery in Liverpool. The disease spread from the home of this sailor and attacked in all 3,992 persons, of whom 621 died (15.6 per cent. mortality).

Conradi regards the epidemic in Metz as a "contact epidemic," because the disease occurred especially in the crowded homes of the poor, in which the sanitary arrangements were very primitive. Often there were several cases in the same house, the disease beginning in children and later attacking adults,

This Metz epidemic is interesting also from the historical point of view, because it appears to be the last outbreak of a long series which can be followed for some fifteen hundred years. These epidemics about Metz have been made the subject of special study by Marechal and Dideen, who describe district outbreaks in 1536, 1539, 1552, 1621, 1770, 1783, 1792, 1835, 1844 and 1870. During the siege of Metz in 1870 there developed, from August to October, 19,135 cases of dysentery in the besieging (German) army and 3,500 cases in the besieged. Since then sporadic cases have occurred from time to time. There was an epidemic of dysentery in Metz again in 1888. Under these circumstances one would expect the influences of immunity to make themselves felt, and Conradi believes that this is evident from the fact that of the seventy persons concerned in the last outbreak, those over twenty-five years of age were immigrants, not a single aboriginal inhabitant older than twenty-five being attacked. Certainly this adds force to the natural inference that the Metz epidemics have been

outbreaks of the same disease.—*Editorial Journ. A. M. A.*

Hay Fever. Treatment of.—E. Fick (*Therapeutische Monatshefte*, April, 1904) deals with two methods of treating hay fever: first, by means of Dunbar's antitoxin, and, second, by his own method by employing aristol. Dunbar's treatment is based on the assumption that all hay fever is due to the effect of the toxins of grass pollen. The author considers that Dunbar starts on a false premise. His experiments with pollen introduced into the nose of persons and producing attacks of hay fever in those who had had this disease before, but not in others, is open to criticism, since the amount of pollen introduced was enormous as compared with the number of pollen which can be gathered in the air under the most favorable circumstances. Next, Dunbar refers the eye symptoms to the direct action of the pollen on the conjunctiva. Mohr has recently proved that by protecting the nose by means of a fine filter the attacks keep off altogether and no eye symptoms take place. It therefore follows that some other cause must act in producing the eye symptoms. The writer's experience teaches that other things besides grass pollen can produce hay fever. For example, some people get an attack of this malady as soon as they come into contact with blossoms of the limetree or of roses and many others, while the so-called autumnal fever is generally accepted as being due to the blossoms of the *artemisia absinthium*,

Fick considers that the antitoxin, which, according to Dunbar, produces a short-lived immunity, does not and

cannot have any action at all. In the second part of his paper he deals with his theory of the etiology of hay fever. To start with, the patient is always neurasthenic. The attacks themselves are directly caused by the action of some agent, of which grass pollen is the most common, but by no means the only one. The nasal symptoms are the direct effects, and the eye symptoms are reflex symptoms. The writer denies that the nasal symptoms are due to vasomotor disturbances, and shows that irritation of the nerve-endings of the trigeminal causes a hypersecretion. The hypersecretion in the case of hay fever is localized in the antrum of Highmore, and the fluid finds its way into the middle nasal fossa naturally. The writer states that he has found in aristol a means of curing all forms of nervous coryza, including hay fever, when it is applied locally to the affected part. He is able to pass a canula, which is very thin and curved in correspondence to the lower turbinated bone, into the maxillary antrum in about 95 per cent. of all cases. Through this canula he blows the aristol powder into the antrum, and finds that as a rule, this need only be done six or seven times to produce a complete effect. The powder is applied every day for three days, after which time the attacks become much less frequent and milder, and often stop altogether. When they recur, the insufflation is repeated.—*Monthly Cyclopædia*, July, 1904.

Ascites Following Cirrhosis of the Liver, Talma Operation For.—The principal cause of ascites in cirrhosis of the liver is the obstruction to the

portal circulation. The percentage of cures or improvements following the operation is about 49.08 per cent. The operation has been of benefit in cases of hypertrophic cirrhosis without ascites, and promises some hope in cases of ascites, due to cardiac disease. For the success of the operation it is necessary that a sufficient number of normal liver cells be present. The operation should be performed early in the disease, in anticipation of ascites, before serious complications have taken place. Simple scarification of the omentum and a corresponding area on the parietal peritoneum is sufficient to secure success. Scarification of liver, gall-bladder and spleen is not essential.

The dietetic treatment of the patient should be continued after the operation, and alcohol in every form strictly avoided in the hope of stopping the destruction of liver cells and the formation of cicatricial tissue.—*Monthly Cyclopædia*, July, 1904.

Has Influenza Been a Causative Factor in the Increase of Appendicitis?—P. Margel, Atlantic City (*Jour. A. M. A.*, July 30, 1904) addressed uniform inquiries to several surgeons, and received the following replies.

PHILADELPHIA, May 3, 1904.

Replying to your query, "Has influenza been a causative factor in the increase of appendicitis?" would state that, in my view, an affirmative answer is demanded by the facts. There is evidence to indicate that influenza and other infectious processes may invite appendicitis.

In a paper embodying a statistical study of influenza ("The Philadelphia Hospital Reports," Voll. III,

1896, by the writer), it was shown that this disease increases the bodily susceptibility to typhoid fever, and more particularly pneumonia. In the same article the fact was illustrated by statistical evidence that influenza diminishes receptivity of the body to malarial infection.

It is doubtless true that infection with a specific microbe may be favored by the recent occurrence of an infectious disease due to some other organism; per contra, the occurrence of an infecting disease may not only establish immunity from the disease itself (*e. g.*, measles and scarlatina), but also lessen or even destroy the receptivity to certain other diseases of the same class.

Judging from personal experience and observation, I am persuaded that attacks of influenza are sometimes complicated with or followed by appendicitis, and hence that an etiologic connection of considerable significance between these two important, acute, infectious processes will be shown, by more extended observations, to exist.

On the other hand, there is much danger of confusing the abdominal symptoms of influenza with appendicitis. I have sometimes observed both pain and tenderness in the appendicular region in the course of otherwise typical influenza. Instances of this sort, however, are not to be regarded as being complicated with appendicitis; it requires the presence of localized resistance to render the diagnosis of appendicitis even reasonably certain. I have, however, met several cases in my experience in which influenza appeared to be the cause (although at times a somewhat uncertain one) of acute appendicitis. I would say that in all cases of influenza the diagnosis of a complicating appendicitis must be made with due caution and reserve.

Very sincerely yours,

J. M. ANDERS.

CHICAGO, ILL., May 4, 1904.

In answer to your letter of the 2d inst., I am obliged to say that I have never seen a case of appendicitis which led me to believe that influenza had been a causative factor as related to it. Influenza has been so common in our country since 1889 that almost all people have suffered from the disease at some time during that period, but as stated above, I cannot recall any case in which appendicitis and influenza were in any way related.

FRANK BILLINGS.

PHILADELPHIA, May 3, 1904.

In my opinion, influenza has been an important etiologic factor in appendicitis.

JUDSON DALAND.

PHILADELPHIA, May 3, 1904.

In reply to your note of May 2d, let me state that I have not noticed any relationship between influenza and appendicitis.

HOBERT A. HARE.

PHILADELPHIA, May 4, 1904.

Only as influenza knocks down the resisting power of the individual can one realize its causal agency in the production of appendicitis. I have no exact data to give. I have no reason to think from my experience that the Pfeiffer bacillus has been productive of appendicitis in any of the large number of cases that I have seen.

J. H. MUSSER.

BALTIMORE, May 4, 1904.

I have no facts which would lead me to suppose that influenza has been a causative factor in the increase of appendicitis. I should say it has not been the case here, where we have not suffered to an extreme degree from the disease.

W. OSLER.

BUFFALO, N. Y., May 5, 1904.

I believe that influenza has been a causative agent in producing appendicitis, for the reasons that it is an important factor in lowering the general resisting power of the economy; that it has been prone to involve the accessory cavities of the respiratory tract, and by analogy should affect

those of the digestive tract; that in point of fact, tenderness over the region of the appendix is distinctly observed in a proportion of cases of intestinal influenza; and, finally, that following an epidemic of influenza clinicians believe that the proportion of cases of appendicitis has been larger. I am aware that this evidence is not beyond question, but I have none more positive to offer.

CHAS. G. STOCKTON.

PHILADELPHIA, May 5, 1904.

There is no doubt in my mind that influenza being a causative factor of catarrhal conditions in general, during epidemics of the same appendicitis is more viable.

JOHN B. DEEVER.

PHILADELPHIA, May 3, 1904.

I have a very strong conviction that the prevailing influenza of the last few years has been a decided factor in the increase of appendicitis, especially of the catarrhal form.

W. W. KEEN.

ROCHESTER, Minn., May 3, 1904.

It is a new idea to us, and I can only say that I have not noticed that appendicitis was more noticeable during the influenza season.

W. J. MAYO.

CHICAGO, May 4, 1904.

In answer to your inquiry, I would say that I have encountered a considerable number of mild appendicitis cases which have appeared within a week after the beginning of a severe influenza, and I had considered this condition as a cause of the disease.

A. J. OCHSNER.

NEW YORK CITY, May 3, 1904.

In answer to your question, "Is influenza a causative factor in the increase of appendicitis?" I would answer: In view of the fact that influenza diminishes the normal resistance to septic infection, it must of necessity increase the dangers of infection from the appendix.

JOHN A. WYETH.

NEWS ITEMS.

Rockefeller has provided a fund of \$1,000,000 for the purpose of studying the causes, prevention and treatment of disease.

Dr. John Punton, superintendent of the Punton Sanitarium at Kansas City, Mo., is adding a large addition to the Sanitarium building.

The next annual meeting of the American Medical Association will be held in Portland July 11 to 14, 1905. This date will admit of many doctors spending their vacation next summer on the Pacific coast. The attendance from the East may not be so large as it was at Atlantic City, but all other

sections of the country will be well represented.

The Association of Military Surgeons of the United States will hold an international congress of military surgeons in the Hall of Congresses on the Louisiana Purchase Exposition grounds on the mornings of October 10th to 15th inclusive, 1904. The members of the Missouri State Medical Association are cordially invited to attend the sessions of the congress and to participate in its work.

Andrew Carnegie has given \$10,000,000 for the purpose of founding an institution for research on the

broadest and most liberal lines. A board of directors has been appointed and a year has been spent in studying the lines of work thought most desirable. The main objects are to promote individual research and to find the exceptional man. Research is now being made in anthropology and archæology in Central Asia, Nubia, Babylon and Assyria.

The American Roentgen Ray Society meets in St. Louis on the 9th, 10th, 12th and 13th of September at the Louisiana building. The profession generally is invited to attend. Dr. Joseph Grindon is chairman of the local committee.

American International Congress on Tuberculosis.—To be held October 3, 4 and 5, 1904, under the auspices of the Universal Exposition, St. Louis, 1904, the American Congress on Tuberculosis and the Medico-Legal Society of New York. By Clark Bell, Esq., LL. D., chairman of the committee on organization appointed by the management of the Universal Exposition, St. Louis, 1904, president of the Medico-Legal Society.

We are unable to print this paper of Mr. Clark Bell, chairman of the committee on organization, for want of space, but print an abstract of it, and reserve a more complete statement for our October number, which will be in the hands of our subscribers at the end of September and before the session of the congress. We quote: "American Congress on Tuberculosis was organized February 22, 1900, at the city of New York, under the auspices of the Medico-Legal Society of New York. It was composed of lawyers, physicians, scientists, governors of states, and was open to all professions and the intelligent laity."

The board of executive officers applied to the government of the United States to lend its influence, sanction and aid to the success of the congress,

and requested that the invitations to send delegates from foreign governments be sent by the American government through its diplomatic corps.

Through the courtesy and broad statesmanship of Hon. John Hay, American Secretary of State, one of the honorary presidents of the congress and honorary member of the Medico-Legal Society, the invitations from the officers of the American Congress on Tuberculosis were sent by the American State Department to all foreign governments within the Western Hemisphere, being limited to the continents of North and South America, and the colonial and other governments in American waters and adjacent to the American continents.

The management of the Universal Exposition learning of the friendly and sympathetic action of the government of the United States applied to the management of the congress and asked that the congress be held under the auspices of the St. Louis Exposition and proposed to name a committee on organization and place the congress on its list of international congresses.

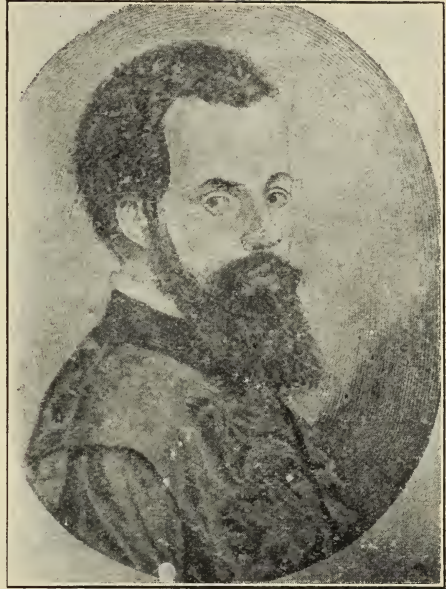
We have not space for the list of officers. The congress will be held in Convention Hall, and a large influential meeting is assured.

BIOGRAPHICAL SKETCHES.



CORNELIUS CELSUS.

Cornelius Celsus, born in Rome about the time of Christ, was the most celebrated author for a number of centuries. A contemporary of the greatest philosophers, poets, and savants of Rome during its most brilliant period, he studied rhetoric, philosophy, economics, the art of war, and medicine, in which latter capacity he was and is best known. He did but little original writing, contenting himself mostly with a commentary upon the works of others, especially of Hippocrates. Those of his writings which we have pertain mostly to the therapeutics of curable diseases. His views are seldom mentioned by subsequent writers, as he was totally supplanted by Galen. He died about the middle of the first century after Christ, the exact date of his death being unknown.



ANDREAS VERSALIUS.

The true reformer in anatomy, a most enthusiastic and persistent worker, was Andreas Versalius, born at Brussels in 1514, of a family already illustrious in medicine. During his stay at the University of Louvain his leisure moments were spent in dissecting small animals. He carried off by night from an execution place near Louvain, bones from which the soft parts had been cleaned away by ravenous birds, thus securing his first skeleton. Attracted by the fame of Sylvius, he afterward went to Paris to become his pupil. At the age of twenty he coached fellow students in anatomy; at twenty-two he was made professor of anatomy at Padua by the senate of Venice; at twenty-nine he issued his great work on anatomy. The following year he was called by Charles V to the court of Madrid, He died in 1564.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

The Secretary of the County Society will please furnish the Secretary of the State Society the dates of the Meetings of his County Society.

COUNTY.	DATE OF MEETING.
Atchison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates .....	.....
Boone	Monthly. First Monday.
Buchanan	Bi-monthly. First and Third Friday, except July and August.
Butler .....	.....
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll .....	.....
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	Subject to the call of the President.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Crawford .....	.....
Current River	Quarterly. August, November, February, May.
Daviess .....	.....
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt .....	.....
Howard	Monthly. Third Tuesday.
Howell	First Thursday of January, March May.
Iron	Monthly.
Jackson	Bi-monthly. Second and Fourth Thursday.
Jasper	Bi-monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen .....	.....
Laclede	Bi-annual. First Mondays May and November.
Linn	Quarterly. Tuesday nearest full moon, Jan., Apr., July, October.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Monthly.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Miller .....	.....
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Nodaway	Monthly. Second Tuesday.
Pettis .....	.....
Phelps .....	.....
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Randolph .....	.....
Ray	Monthly. Third Wednesday.
Reynolds .....	.....
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County	Bi-monthly. Second and Fourth Wednesday.
Schuyler	Bi-monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	First Wednesday in March, June, Sept. and Dec.
Sullivan .....	.....

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

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COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
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Buchanan	W. T. Elam.....	St. Joseph.....	Chas. W. Fassett.	St. Joseph.
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Clay	L. J. Jones.....	Linden	F. H. Matthews..	Liberty.
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Johnson	J. I. Anderson...	Warrensburg	E. H. Gilbert....	Warrensburg.
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NEXT ANNUAL SESSION--PORTLAND, OREGON, JUNE, 1905.

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Counties in italics not yet organized.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

VOLUME I.

OCTOBER.

NUMBER 4.

ORIGINAL ARTICLES.

A CONTRIBUTION TO THE STUDY OF THE TREATMENT OF GALL STONE.

BY HERMAN E. PEARSE, M. D., of Kansas City, Mo.

The surgery of the gall bladder and gall ducts includes:

1. Diagnosis of irritation caused by the presence of calculi in the gall bladder or in the ducts.

2. Diagnosis of gall bladder obstruction, or of gall duct obstruction.

3. Removal of stones from gall bladder and ducts.

4. Drainage of gall bladder.

5. Removal of gall bladder.

6. Anastomosis of gall bladder and intestine.

7. Drainage of sub-hepatic region, following pus operations, the opening of the common duct or accidents and injuries in this region.

Especial attention will be paid to diagnosis of the existing condition, the anatomy of the parts concerned in the incision and the technique of drainage, as these are points upon which discussion will be of most value and at which there is most room for improvement.

Diagnosis.—The irritative lesions of the gall bladder are probably due to

the mechanical presence of calculi in the bladder. It is possible, however, that the cause of the stone formation, whatever that is, may be the irritative cause, and may be responsible for the symptoms that follow. There are two recognized theories as to the cause of calculus. One, that the colescerin is precipitated from the bile by some chemical change on the part of the bile; the other, that some inflammatory condition of the mucous membrane of liver ducts, common duct and gall bladder is responsible.

Now, it may be that the reflex gastric symptoms and the dull, aching pain and the radiating pain and the intestinal gas formation and the other symptoms of gall stones may be caused by the catarrhal condition of the bile passage instead of by the mechanical irritation of the stone; or, if the other theory be correct, by the same nervous influence that is responsible for the altered chemical condition of the bile. Whichever is correct, the fact remains that this train

of symptoms accompanies gall stone formation, and it is generally believed that the mechanical irritation produced by the presence of the stones is responsible for the symptoms described.

The symptoms of the presence of gall stones are given by Ochsner* as follows:

1. Digestive disturbances, a feeling of weight or burning in the vicinity of the stomach after eating, gaseous distension of abdomen.

2. A dull pain extending from the epigastric region around the right side about the level of the tenth rib, passing to a point near the spine and progressing upward under the right shoulder blade.

3. A point of tenderness on pressure between the costal cartilage of the ninth rib on the right and the umbilicus.

4. A history of having had one or more attacks of appendicitis or typhoid fever.

5. In many of these cases there is a slight tinge of yellow in the skin, not sufficient to be recognized as icterus, but still sufficient to be perceptible upon close inspection, especially on the days on which the patient is not feeling very well, when she complains of feeling "bilious."

6. There is usually an increase in the area of liver dullness.

7. There may be swelling of variable size opposite the end of the ninth rib.

I have applied the name irritative symptoms to the group that includes numbers 1, 2, 3 and 5, possibly 6, while to number 7 and to the symptoms of cramping pain, severe jaun-

dice and vomiting, with rigidity of muscles, I would apply the term obstructive symptoms.

The obstructive symptoms have in the past been considered as the entire symptom complex of gall stone disease. This is incorrect. The foregoing symptoms of irritative lesion must be considered. Ochsner found that of all his cases operated upon in 1901, less than half had distinct biliary colic. Also that about 80 per cent. had dyspepsia, and most of them had been treated for gastritis, that only a small portion ever had jaundice and in more than one-half no jaundice occurred. Only a few had passed gall stones in the feces. I have found similar conditions in my experience. Moreover, in the years from 1892 to 1897 I was in charge of the anatomical room of the Kansas City Medical College. An average of about twenty-five cadavers per year came under my observation, and always were several found to have gall stones. The diagnosis had not been made. A physician or surgeon depending upon the three classic symptoms of hepatic colic, jaundice and calculi in the feces for diagnosis will certainly fail to recognize more than one-half of his cases of hepatic calculi. This fact has been noted by numerous writers in the past two years, and was especially prominent in the papers and discussion of the American Medical Association of 1903 at New Orleans. Moreover, it is only when such complications exist that the death rate in operation for gall stones, in the hands of competent surgeons, appears. The cases that die, with or without operation, are the cases that have obstruction and inflammatory symptoms.

* Ochsner Clinical Surgery, page 136.

The irritative symptoms must be differentiated from dyspepsia in its various forms, anacidity, hyperacidity and fermentation in stomach. One of the best evidences of the hepatic origin of these conditions is their chronicity, their tendency to return. A lady came to me last month with such a history. She belched large quantities of gas, her stomach bloated after meals, she had much distress after eating, pies and fat meat were especially obnoxious to her. She had had this condition many years. Medicine helped her, but did not cure her. I told her her condition was due to gall stones, but she said, "Oh! no! I am subject to these stomach spells; my father had them." How many patients do we all know who are "subject to stomach troubles" or to "spells with their stomach?" It is probable that a great majority of them will, if questioned and examined, give a history and symptom list of gall stones. I removed ninety-two calculi from my patient of last month, and now she will no longer be subject to her "spells" nor to the ghost of her father's unrecognized calculi.

The symptoms of obstruction are of two classes, according as they are due to stone in the hepatic, or common duct, or the bladder and cystic duct. In the hepatic, or common duct, the liver enlarges, the bile is apparent in the urine, severe jaundice follows acute, cramping pain and the stools show lack of biliary coloring. Chills and hepatic cholangitis are apt to occur. In stone in the cystic duct, or the outlet of the bladder, there is not jaundice, but a distended bladder, and the cramping pain is severe. The ob-

structive symptoms must be differentiated from cancer in this region; we should not forget the frequent prevalence of both these conditions simultaneously. Cancer and gall stones are often found together.

Anatomy of Rectus and of the External Oblique and Internal Oblique Muscles.—A study of the anatomy will show that we may cut vertically through the outer border of the right rectus muscle or the linea semilunaris and accomplish the following:

1. The great external oblique will not be divided nor, indeed, will any of the abdominal muscles.
2. The tension of muscles will not pull the incision open.
3. Respiration will not interfere with approximation of cut edges.
4. We come directly to the fundus of the bladder.

In enlarging the incision to obtain further room we may extend the upper extremity of the incision to the left or inward and divide only the weaker fibres of the rectus abdominalis, thus preserving the integrity of this splendid and useful muscle. We may extend the lower end of the incision outward (to the right) and not cripple the external oblique and divide the other two in the course of their fibres.

This incision is the most logical and at the same time quite advantageous in giving room for work. I have abandoned the Kocher incision for this one.

Kocher's incision is good in all cases, but has the disadvantage that respiration tends to pull the wound open, and healing is thereby retarded. It is made along the rib

margin on the right side. The best incision is in the outer border of right rectus muscle or in the linea semilunaris. This to be enlarged by carrying the top of the incision to the right and the bottom to the left, making an S shaped incision.

Further space is gained by an assistant lifting the rib margin—eviscerating the liver. Further space is gained by an assistant retracting strongly the rectus muscles, stomach and structures on the left of incision. Further space is gained by placing a sand bag under the patient's back, bending the patient backwards. And, lastly, further space is gained by placing the patient in reversed Trendelenburg, *i. e.*, raising shoulders and lowering feet. The patient is secured by straps under the arms. The body is raised twenty-five or even thirty-five degrees. The intestines fall away, air enters, and with the above retractors in place the work upon the ducts becomes more simple and vastly easier of execution and more certain of success.

The contraindications to operation are the usual surgical conditions that prevent operative interference plus the factor of severe jaundice. Severe jaundice marks a hemorrhagic diathesis, and many patients so afflicted will bleed to death from small wounds.

* "Mayo Robson gives calcium chlorid, thirty-grain doses, to deeply jaundiced patients for a time before operation to make the blood more plastic and to lessen the tendency to bleeding."

Removal of Stones from Common

* Warren Gould, *Int. Text Book Surgery*, Vol. II, page 440,

Duct (choledochotomy) and from the Gall Bladder (cholocystotomy).—The incision is made as described in a previous paragraph, retraction and position as also described. The finger searches the bladder, feeling through its walls for calculi. When present they feel much like the boy's marble sack, the stones moving over one another if loose, and giving a nodular feel if tightly packed. When the gall bladder can be brought up to the wound it is anchored to the incision. Gauze pads protect the intestine and wall off the field of operation. The bladder is emptied of bile and calculi. The ducts are next examined. We reach the foramen of Winslow, and find the duct and the hepatic artery and portal veins forming its anterior border (superior border, with patient reclining). The duct must be palpated to its extremity—the duodenum. If no stones be found the field is cleaned, sponges removed and peritoneum closed snugly with fine catgut the full length of the incision and surrounding the anchored open bladder. This leaves the gall bladder opening into the bottom of a funnel-shaped cavity, the external wound may be partly closed. A rubber drain is fastened by a stitch in the open gall bladder and gauze packed about it. The discharge of bile should be excessive. The tube should be removed in three to five days. The fistula should discharge for four weeks to several months, closing when the ducts are open and in a healthy condition.

If stone be found in the duct, the procedure is more complicated. The usual site for such stone is about one-half way to the duodenum from the

gall bladder. Special care must be used, following directions given above as to incision, position and retraction. The duct should then be strongly pulled forward and outwards toward the surface of the abdomen and made to present in reach of the operator; the duct is incised over the stone, and it slips out. A drain is now placed in position. I am satisfied with a gauze wick wrapped in gutta serena tissue, and brought out of the wound. This should be stitched to the duct over the opening with fine catgut. Fenger advised a rubber tube down to the wound in the duct and two gauze drains inserted, one above the rubber tube and one below it. The Mayo brothers use a rubber tube inserted into the opening of the tube and gauze wrapped about it, after the manner of Abbe, of New York, both are stitched to the duct to prevent slipping; should the patient vomit, Ochsner advises a "glass tube wrapped in iodoform gauze in the pouch under the liver to drain this space, which is so likely to be infected." He also uses the rubber tube in the duct. All agree if much leakage has occurred, or is likely to occur, during healing that the abdominal wall should be perforated below the right kidney, and drainage made here also, as first practiced by Morrison.

Removal of Gall Bladder (cholecystectomy).—When the gall bladder has been crippled by long continued suppuration and the walls have undergone extensive inflammatory changes, it may be better to remove it entire than to drain it, as has been described. Mayo Robson gives nine indications for cholecystomy in his book on gall stones and their treatment:

"1. In bullet wound, or other wound of the gall bladder where suture is impracticable.

2. In phlegmonous cholecystitis.

3. In gangrene of the gall bladder.

4. In multiple or in perforating ulcers.

5. In chronic cholecystitis from gall stones, where the gall bladder is shrunken and too small to safely drain, and where the common duct is free from obstruction.

6. In mucous fistula due to stricture of the cystic duct.

7. In hydrops of the gall bladder due to stricture of the cystic duct; as also in certain cases where the gall bladder is very much dilated.

8. In certain cases of empyema, where the walls of the gall bladder are very seriously damaged.

9. In cancer of the gall bladder."

Removal is done as follows: Divide the serous covering of the cystic duct and the superficial layer of tissue under it; dissect the mucous membrane out down into the cystic duct opening; ligate and cut away the mucous lining as far outward as the first line of incision; sew the peritoneal flaps over the stump of the cystic duct; dissect out the gall bladder, closing the peritoneal scar.

Anastomosis of Gall Bladder and Intestine (cholecystenterostomy).—

When, from stenosis or closure of the cystic, or common duct, the bile can no longer be discharged per vias naturales, an anastomosis should be made between the gall bladder and intestine. The most desirable portion of the gut for this procedure is the upper portion of the jejunum or, better still, the duodenum. The anastomosis may be made by sewing by the

bodkin of Robson, by the elastic ligature of McGraw or by Murphy's button of suitable size. The last is the accepted procedure. It can be done most quickly, shows the lowest mortality rate and gives the best after-results. Murphy gives the following indications for this operation:

1. Obstruction to the common duct.
2. Obstruction to the cystic duct, where cholecystectomy is impracticable.
3. Chronic cholecystitis, with thickening of the walls of the gall bladder.
4. Fistula through the skin, where the patient is emaciating from the loss of bile.
5. Carcinoma of duct in early stage.

In operating for this form of anastomosis, the gall bladder and intestine that are to be united are delivered from the abdomen, and are cleaned of their contents by stripping. They are held up in place and kept closed by a second assistant or helper, who stands at the right of the assistant or at the left of the operator. Soft intestinal clamps, rubber covered or gauze covered, may be used to keep back the contents. The field of operation must be well protected by gauze sponge packing. The lighter portion of the button should be inserted in the gall bladder—the heavier in the intestine. The opening in each should be but just large enough to admit the button. The usual purse string suture is inserted and the operation completed exactly as described in all text books for Murphy button anastomosis. Particular attention should be paid to the relation of the

parts after they are united and dropped back in place, that there may be as little of strain or tension as possible, and the point of incision chosen accordingly. There is practically no foundation for the expressed fear of liver infection from the bowel.

SPECIAL CONSIDERATIONS.

Diagnosis.—The points of gastric disturbances, tenderness and pain which I have referred to as "irritative symptoms" should be given greater prominence than is customary.

Drainage.—Instead of suture of the ducts when calculus is removed, more care should be had with drainage. This is of four kinds:

1. Rubber tube drainage into the duct if necessary.
2. Glass wick drainage surrounding by Cargyle membrane or by gutta percha tissue, which should be fastened by fine catgut (three to five days duration) to the peritoneum over the incision of the duct.
3. Glass tube drainage surrounded by gauze into the pouch under the liver.

All of these to lead out of the abdominal wound in front and to be removed in four to six days.

4. "Stabbs' drainage," *i. e.*, perforation of the abdominal wall below or at the outer side of the kidney and the insertion of one of the above described drains, my preference being No. 2. This to be removed in three to four days and left out, or rubber substituted if pus is present and irrigation needed.

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THE INTERNAL ADMINISTRATION OF ADRENALIN CHLORIDE IN
THE VARIOUS TOXAEMIAE.

BY JOHN K. BRODERICK, A. M., M. D., of St. Louis.

As a result of many experiments my investigations led me to believe that adrenalin chloride was indicated in the treatment of toxic fevers and kindred diseases due to the various toxins and infections. The experiments themselves being rather fragmentary and in incomplete form, I do not feel at liberty to recount them at the present writing nor present the theories I have evolved about them. Hence I claim the attention of the profession for a most preliminary paper on the important topic of the administration of adrenal extract in the various toxæmiae feeling justified that the amount of good that can be done and the large share of suffering which can be spared humanity a sufficient guarantee for making known at this time my ideas and conclusions concerning adrenal therapy.

The first eight or ten cases in which I began the internal administration of adrenalin for the various ills convalesced so rapidly that I decided there had not been very much the matter with them, and was inclined not to pay any attention to the matter. It was not until the following case, which presented all the characteristics of pneumonia, came under my notice that I decided to give adrenalin another chance.

Case 1.—Mrs. K., æt. thirty-three, called me on November 15, 1903. She had been suffering some time with "a cold," and when I first saw her was in bed complaining of "soreness" in both lungs, which "began

with a sharp pain in both sides." Patient was frightened because her sputum was slightly streaked with blood. No distinct history of rigor could be elicited, though patient felt cold and was warmly wrapped up in bed when first seen. Temp., 101.2; pulse, 108; resp., 21 per minute. Physical examination showed slight dullness in the base of both lungs and a few crepitant rales could be heard upon auscultation. Herpes labialis present. A mixture containing fifteen drops to the dose of adrenalin was ordered to be taken every hour; in addition, plaintiff's chest was tightly wrapped in cotton saturated with whiskey. Patient was seen again the next day, condition about the same, except no rales were heard, dullness barely distinguishable. Temperature had gone down to 99.3, pulse 96; headache had left her, also pain in the side; slept better than she had for a long time. Urine examined, negative; no change in chlorides appreciable. On 17th patient's condition was so improved that I did not call again until the 20th, upon which date I found her sitting up and tending to her duties. Her appetite had picked up suddenly, and she begged to be permitted to go out calling, which was denied.

Case 2.—On February 13th, I was called to see a patient whom I had known to be in poor health for several weeks previous. He had had a chill shortly before noon, the effects of which he endeavored to combat

with a generous amount of whiskey. He had the good sense, however, to take to bed, where I first saw him at 10 P. M. of the same day. At that time he was somewhat stupified by the whiskey he had imbibed, but was still keenly alive to the pain in his right thorax just below the nipple. His breathing seemed to worry him greatly and he complained of "feeling feverish." Temp., 101.3; pulse, 116; resp., 22. Physical examination: respiration rapid, shallow and guarded; no difference noted in either thorax upon inspection. Percussion revealed slight dullness in middle lobe of right lung, midway between mammary and axillary line. Area of dullness considerably larger than a silver dollar covering sixth and seventh interspace. Upon auscultation crepitant rales were heard at this point at the end of inspiration. There was no expectoration and only a slight cough, though patient said he had a sensation as though he wished to cough up something. I gave him a solution containing fifteen minims of adrenalin chloride to the teaspoonful, which he was directed to take every hour. Upon calling again about ten the next morning his distress was very much relieved. Temp., 99.8; pulse, 101; resp., 19. The area in which the crepitant rales had been heard was now reduced to the size of a quarter. Called again the same evening after ordering the dosage to be continued; this time found patient sitting up; rales had disappeared entirely, likewise the dullness. Temp., 99; pulse, 96; res., 18. Convalescence by lysis.

In the interval between these two foregoing cases, I had occasion to

treat some seven or eight cases of la grippe, the greater number of which presented rather severe bronchial symptoms. I administered adrenalin as the only therapeutic agent in each and every one of these cases, with the result that all but two were able to leave their beds the day following the installation of treatment. Of the other two cases, the time required for recovery was three and five days respectively. The history of the last mentioned case is herewith given, the others having run such a light course no records were kept. What I wished to call attention to in this connection is not so much the rapidity with which adrenalin acts, but not one of the cases of influenza thus treated was followed by any complications, despite the disposition the disease this year assumed of causing pneumonia.

Case 3.—Miss M., aet. twenty-two, presented herself for treatment on February 17th. As I had been brought in contact with the patient for two weeks before and noted her daily failing condition, I was not surprised when she called at my office with a fever of 102.4. Patient gave a history of typhoid some four months previous, from the effects of which she had never fully recovered. She had been in bed six weeks at that time, and when I saw her was extremely anaemic—cheeks and lips very pale, no appetite, digestion poor, sleep disturbed. Complained of pains in back and chest; had headache, constipation and "cold in the head." A diagnosis of grippe bronchitis was made and patient placed on adrenalin every hour; the bowels were regulated with apenta water. The bronchial symptoms disappeared on the morning of

the third day of treatment; appetite came back and the fever, which had been ranging between 101.4 to 101.7, now dropped to 99. Still patient showed no disposition toward getting out of bed, felt too weak. Upon inquiry found that she had been eating nothing but sweetmeats; in addition, her hygienic surroundings were very poor. A more substantial diet was ordered and better regime instituted. Adrenalin was now given every two hours in somewhat smaller dosage. At the end of the week she was attending to her duties. Her color returned to her cheeks rapidly, her eyes lost their listlessness and her activity and interest greatly increased with an unbounded appetite. Within ten days after resuming her duties she said: "Doctor, my appetite has become something awful; I eat so much I can hardly get up from the table."

Case 4.—Mrs. B., æt. fifty-eight. Afflicted for years with hoarseness, especially in winter; had been to Vienna twice for treatment. Dr. Miller, who treated her there, claimed her hoarseness was due to a thin film which would persist in growing over her vocal chords, upon removal of said film she would be able to speak clearly. But the hoarseness would return again within a day. Gave patient a solution of adrenalin which she was directed to gargle before swallowing. The day following inauguration of treatment hoarseness was greatly relieved. For some unknown reason medicine was discontinued and her troubles returned. Upon resuming the treatment carefully patient was entirely freed from her affliction until she left the city.

Cases 5 and 6.—Mr. S. came into

my office on the afternoon of the 26th of January suffering with tonsilitis. He had been driving a wagon for the past week in cold, wet weather. Temperature, 100.9°; pulse, 104. I prescribed adrenalin in ten-drop doses, to be retained in back part of throat a few seconds before swallowing. The next morning I was hurriedly called to his wife and found her in a fever of 103.2°; pulse, 122. She had been applying heat about her neck, as the pain in her throat was intense. Examination revealed a follicular tonsilitis. She was ordered the same dosage as her husband hourly, and in addition thereto an ice pack was applied about the neck. The same evening her temperature fell to 99°. When seen again the next day she had already resumed her duties. The husband's case ran a light course.

Though the crisis in tonsilitis is usually on the third or fourth day, still it may occur earlier. However, my experience with adrenalin in these cases being unfailingly the same, I feel it has a special therapeutic value as all the records of tonsilitis I have kept thus treated pass the crisis within the first twenty-four hours after treatment is instituted, as is witnessed in the following instance.

Case 7.—Was called in the evening to see Mr. C., a young student, twenty-two years of age. Fever, 102.8; pulse, 124. He had been taken ill that morning with a severe chill and pain in his right tonsil. Examination showed angry-looking follicles on the right tonsil. A mixture, containing fifteen drops to the dose of adrenalin chloride, which patient was directed to partially gargle before swallowing was prescribed, to be

taken hourly. Upon my arrival early the next morning patient greeted me by saying that he had not slept so soundly since a child, and wanted to know if I had given him morphine. I was surprised to find both temperature and pulse normal. Upon examining the tonsils I found that the follicles had entirely disappeared. Patient claimed that he fell asleep about 9 o'clock, and although a card game was in progress in his room until after midnight, he did not hear a sound until he awoke about seven in the morning. The next day patient resumed his duties at school against my orders without any ill results.

Case 8.—One of the most remarkable cases I ever treated was that of Mrs. S., æt. thirty-nine. First seen January 15, 1904. Habitus phthisicus, emaciated, night sweats. No previous history of tuberculosis in the family though her brother-in-law is afflicted. Had been treated for six weeks previously by different physicians for this trouble, which came upon her after a severe cold. Physical examination showed both apices to be affected—right lung more than left. Her greatest inconvenience was caused by a pleuritic effusion just below the right mamma, covering an area about five inches square. Empyema was at first suspected, but the diagnosis of tubercular effusion was finally made. Afternoon, temperature, 101°; sputum contained T. B.; slight leucocytosis; decreased amount of hæmoglobin in individual corpuscles; percentage of hæmoglobin with Reichert's hæmometer 58; urine unusually clear and free from inorganic as well as organic sediment. I did not wish to take up the treatment of this

case and tried to persuade her to go to a hospital, but her husband finally prevailed upon me to do what I could. Adrenalin, in twenty-drop doses, was administered every hour for the first three days. Patient was directed to lie with her chest bared to sunlight and a suitable diet ordered. She began to gain and improve from the first day, the area of effusion diminishing appreciably day by day with the assistance of local application of dry heat. Night sweats disappeared about the third day of treatment, appetite increased to ravenous proportion within a week. No rales or even roughened breathing could be heard in left apex after the eighth day. Gained in weight and cheerfulness steadily. About this time complained of pain in region of kidneys and the heart. Urine examination showed nothing abnormal; heart in good condition. As these symptoms occurred synchronously with the appearance of menstruation, it likewise passed away at the end of the catamenial period. Examination of the blood on the eleventh day after treatment began, showed remarkable improvement in the red cells—hæmoglobin, 72 per cent. Tried to get patient to leave the city for her health but she refused to go, because she "felt too well." Discharged her maid and is doing her own housework. Occasional reports from patient say she has gained in health and cheerfulness steadily, though all medicine has been discontinued since February 3d. March 26th patient called at my office upon request. Improved, color good, both apices move freely with respiration, depression about clavicle not so marked, appetite exceptionally good;

hæmoglobin, 86 per cent. weight increased from 112 to 116 pounds in four weeks. May 2d patient called again as she was worried about a recent cold she had contracted. Two months ago treatment for tuberculosis was discontinued, but she is still improving. Weight still 116 pounds, but patient claims she is now wearing considerably lighter clothes. May 16th, weight 118 pounds; still improving.

Case 9.—Another peculiar case in which an unlooked for result was obtained was that of Mrs. K., who had been treated gynecologically on and off for some years. She presented herself on January 5th, with a severe discharge from the uterus. The prolonged state of affairs had distorted the position of that organ so that the cervix was bent back on itself and lay deep down in the cul-de-sac. Though there was not any decided dysmenorrhea complained of, still there were irregularities. I instituted the ordinary treatment without result, and on the 24th curetted the uterus. There being considerable hemorrhage the uterus was irrigated with a 1-5000 solution of adrenalin chloride. After the parts were well washed I swabbed out the uterus with a 1-1000 sol. of adrenalin. Not another drop of blood was shed and patient rode home in the cars shortly after the operation. She has had no irregularities with her menstrual periods since, neither has there been any evidence of endometritis. The flow now lasts but two days instead of four, as formerly, besides being considerably less in quantity. The strange part of this case is that previous to the operation patient was sub-

ject to frequent attacks of asthma, which often prostrated her. Since curettment and swabbing out with the adrenalin, she has not had a return of her asthmatical attacks.*

Case 10.—Anna B., colored, æt. nineteen. This case presented the symptoms of stercoraemia. I was hurriedly called for in the evening and found patient in a stuporous condition, greatly depressed, with a fever at 102.6; pulse, 132. Patient had a severe headache with considerable pain in left hypochondriac and iliac region. Abdomen boardlike, fecal masses felt. History elicited the fact that there had been no stool for five and a half days. Ordered a high enema containing magnesium sulph. with a tenth of a grain of calomel every half hour, repeated four times. Prescribed adrenalin, fifteen minims every hour. The next morning, neither enema nor calomel had been effective, but stupor as well as fever had left patient. Temperature, 97.9°; pulse, 104. This condition was rather surprising considering that there had been no evacuation of fecal contents, nor had anything been vomited. Enemas and calomel were again ordered but were not effective until afternoon. It may be claimed that the auto-antitoxines of the individual were responsible for the suppression of the fever and relief of the conditions. This, of course, is possible, but at the same time nature had several days in which to accomplish this result and failed, and the effect was observed only after adrenalin had been administered.

* Since going to press patient has had one slight asthmatical attack; formerly she was afflicted several times a week with severe paroxysms.

Case 11.—Mr. W., æt. fifty-four, presented himself January 6th with an acute exacerbation of an old chronic cystitis. During the week previous to visiting me, he claimed to have been "down with malaria." General health depleted and appetite poor. Blood failed to show plasmodia—urine, no organic deposits—uric acid somewhat in excess; however, a great deal of blood and many active bacteria present. Injected a drachm of adrenalin in two and a half ounces of distilled water after having first irrigated the bladder. Third day thereafter saw patient again—hæmaturia absent, bacteria immobile, but a great deal of pus was now present in the urine. January 11th, pus slightly less, very few bacteria. January 13th, pus, bacteria and blood entirely disappeared. Up to this had been injecting the same amount at each visit. Adrenalin was now discontinued and warm boric acid irrigation given for a week, after which patient was discharged. On February 22d he returned with same symptoms, but not so aggravated as at first. I concluded that treatment had not been carried out long enough, as I had suspended it immediately upon cessation of symptoms. I directed patient to come every day for five days and then every third day for week thereafter. I now injected a full half ounce of adrenalin the first three treatments in about three ounces of water and then began to diminish the dose until patient was discharged. See him occasionally and there has been no sign of recurrence. Patient feels much stronger and can now do any kind of work without fatigue. Appetite extremely good.

Case 12.—Mr. R., with a history of

luetetic infection dating back six years, was seized with severe pain along the course of his sciatic nerve in the early part of February. This was supposed to be of syphilitic origin and his physician ordered him to Hot Springs, as much to take the baths for his rheumatism as for a course of anti-luetetic treatment. Improvement was inappreciable up to a short time before his return and he was ordered home. He returned in great pain after a hard journey and in greatly depressed spirits. Patient was referred to me on March 27th for treatment. Being a hard patient to handle, it was decided to place him in a hospital. Morphine had to be administered to quiet his pain. Treatment began on the 28th with adrenalin chloride every two hours. I called in the afternoon of the same day and gave an injection of ten drops of adrenalin at the site of exit of the sciatic nerve. Previous to the injection, patient complained of pain, which he said disappeared upon giving injection and asked whether I had given him morphine. This effect, however, I am inclined to place to the mental action rather than to any quality of the drug. Improvement was very slight from day to day. The third night after entering the hospital, he tried to do without his morphine and the pain was intense. I thereafter prescribed belladonna ointment with mercury and ichthyol. This was very effective the first two nights in quelling the pain, but afterwards seemed of no avail. About this time I had decided that his sciatica was the result of his gonorrhœal infection. Upon questioning him I found that his "clapp had started running again." Two drachms of adrenalin

undiluted (1-1.000) was injected into his posterior urethra. The results following this were so pronounced that the patient could sleep without morphine, and as his pains were very appreciably diminished, I decided I had found the seat of his troubles. In a day or two I repeated the injection after previously washing out the bladder with boric acid sol. However, this time I injected a half ounce of adrenalin in an equal amount of distilled water, which patient was directed to retain for five minutes. Upon passing the same, considerable pain was experienced. From this time on progress was steady, and on April 11th, two weeks after treatment began, patient went down to his office. For about two weeks after that, he still experienced some slight difficulty in getting about. Injections were given about every four or five days. In the meanwhile patient had been taking adrenalin internally every two hours, except for a few days when the dosage nauseated him. The peculiar feature in this case is that after each urethral injection improvement was most marked, so great, in fact, that the patient himself commented on it. The blood taken from this patient at the beginning of treatment showed poikilocytosis with a deficient amount of hæmoglobin in the individual corpuscles—the usual anæmic blood picture of syphilis. Another recent specimen is devoid of poikilocytes and shows a better percentage of hæmoglobin.

Case 13.—Mr. W., three years ago underwent a siege of typhoid which left him a physical wreck. He has been compelled to remain in bed most of the time through weakness. When

seen he was confined to bed, stating that his spine was too weak to support him. Patient was extremely anæmic, had a good appetite, but nothing could be ingested without causing discomfort—moreover patient claimed that every morning for the past two years he was compelled to take a cathartic. Diagnosis of dilatation of the stomach with atony of the muscular walls was made. Adrenalin with essence of pepsin as a diluent was given. Patient felt very much exhilarated, and on the third day felt vigorous enough to get up and appear at the dinner table. He conversed with family until a late hour and was surprised not to be weak and fatigued at bedtime. Though under treatment less than two weeks when he left the city, he was much improved in spirit and health, claiming that for the first time in several years his bowels moved regularly without any purge.

Case 14.—Mrs. B., of high nervous temperament, frequently complaining of nervous headache. Usually ten to fifteen minims of adrenalin in a mouthful of water relieves the condition in a few minutes. Sometimes it is necessary for her to remain quietly seated for a quarter of an hour, when a second dose relieves her entirely.

Case 15.—Case of abscess in small of back, size of large walnut. Site red, hard and painful, but no fluctuation. Injected ten minims of adrenalin directly into abscess. Process was retarded and tumor decreased in size rapidly from day to day. About fourth day after injection, small scab came off at site of introduction of needle with single drop of pus adhering to it.

In addition to the acute diseases, cited, I have applied adrenalin in a number of other acute infections and in a wide range of chronic conditions with good result. Cases of gonorrhœa, especially of remote origin, disappear with unbelievably few urethral injections. I have had very gratifying results in anæmic conditions and neuroses of various kinds. Even in certain valvular heart affections, where swollen or cold feet worried the patient, the administration of adrenalin has been productive of very satisfying results. I have also made the observation that since using adrenalin in weak solutions in surgical dressings, I have not had a case of infection.

When I undertook the administration of adrenalin internally, it was not dictated by the voice of empiricism, but the experiments I had made and what I had learned and observed of the action of this wonderful extract led me to conclude that neither the field of its usefulness nor the principle of its action had been appreciated. As stated at the beginning of this article, I am not prepared to advance any theories regarding the action of adrenalin, but a recent unfortunate newspaper article in one of our local papers has made some premature statement from me seem necessary at this time. I endeavored to prepare a report on the series of tubercular cases treated with adrenalin at the Emergency Hospital of this city, together with a number of other private cases for this occasion, but found it impossible to prepare a comprehensive report in so short a time. Hence the results of adrenalin in

tuberculosis will form the subject of a separate paper.

In following the trend of my investigations, the way toward tuberculosis was pointed out as a possible ground for proving some of my assumptions. As the ideas were mere suppositions, I present them to you as such, hoping that they may prove food for thoughts to those who are engaged and prepared to carry on investigative work better than I, and become productive of beneficial results. It was observed that in febrile conditions the injection of adrenalin had much the effect of the specific serums. (In one case, temperature 102°—pulse 130 was reduced to 98—pulse 110 in half hour after five minims had been injected. In another case, temperature 103.6° was reduced to 101.1° in fifteen minutes after which another injection was given and temperature fell to about normal.) Naturally the question arose, what is fever that adrenalin should reduce it? Every infection produces toxins, and as we are taught that the toxine is the deleterious substance, then it becomes the office of nature to neutralize the toxins. Does it not seem natural to suppose that as the economy is essentially always one and the same, it is prepared to combat disease with the same weapons? Is it more rational to presume that a different antitoxine, and, consequently, a different serum is manufactured by the body against each disease, or that there is one underlying principle, more or less modified, to meet the demands of each? The fact that the different serums have been found to be more or less interchange-

able in the various diseases would tend to show that they possess some common principle destructive to at least more than one toxine. Another peculiar feature is that the most effective serums are obtained from the diseases which produce the highest fevers. What is the rationale of this? Supposing the toxins in the blood excite the adrenal gland to activity — the adrenal secretion, we know, changes the blood with its potential for oxygen, which when brought in contact with the toxine oxidizes it, producing heat or fever. The greater the amount of toxine, the greater the adrenal excitation and consequent fever. Hence, also, the presence in the blood of greater amounts of adrenal secretion to be drawn off in the serum. This would account for the greater efficiency of serums obtained from infections producing high fever. But it may be asked, why are there no reliable serums for certain virulent infections, say, for example, tetanus. It may be that the tetanic toxine is so great or so virulent as to overpower the adrenal gland, thereby arresting secretion, and hence no adrenal substance appears in the serum. However, there is still another side to the question. Bacteriologists teach us that bacteria do not all discharge the same amount of toxins; neither do all pour their poisons into the blood. Abbot (*Principles of Bact.*, page 494) tells us that among other bacteria the toxine of tubercular bacilli is much more conspicuously present in the protoplasm of the bacteria than in the fluids in which they grow. This offers an explanation for the pertinacity and slow, insidious process of phthisis

and, besides accounting for the small amount of fever in the initial stages, gives a reason why there has never been a successful tubercular anti-toxine, if we assume that the adrenal secretion is excited by the presence of toxins in the blood, and that the adrenal secretion, either as such or modified by the various toxins, is a large and weighty component of the serums.

In this connection the preliminary note by Ed. T. Reichert, M. D., Professor of Physiology University of Pennsylvania, on "Adrenalin in Morphine and Opium Poisoning and in Circulatory Failure," is very instructive. The tables he has compiled "showing the effect of adrenalin upon heat production (general metabolism), heat dissipation, and body temperature in normal and morphinized dogs," are worthy of study. Injection of weak solutions of adrenalin upon a normal dog produces very little rise of temperature, the difference noted being within the normal range of variation. However, upon a morphinized dog weighing 12.5 kilos, which "was given 0.7 gramme of morphine sulphate subcutaneously, followed by 3.75 grammes intravenously, and this in turn by an intravenous injection of 0.0005 grammes of adrenalin in 3.5 cc. of water," the temperature was found to rise very appreciably. It arose from 37.92° to 37.95° the first minute after the injection, to 38.12° at the end of the third minute, and at the end of eight minutes was 38.05°. The respiration rate, taken at the same periods of time, was 24, 90, 102 and 90 per minute, respectively; the pulse rate 186, 177, 168 and 186.

Dr. Reichert, in offering an explanation of these phenomena, "suggests that morphine acts as a direct depressant to the secretory process of the adrenal glands, thus depriving the vital centers of the secretion, with a resultant marked depression of both the general and special forms of metabolism. In normal dogs, very small doses are without effect, presumably because the quantity of adrenalin introduced is so minute as to be rapidly destroyed or compensated for by an inhibition of the secretory activity of the glands; but in morphinized dogs, because of the blood lacking the probable normal constituent, adrenalin is not destroyed until it has been utilized in its normal work." It seems to me a more probable suggestion for the explanation of these effects, is to suppose that the office of the adrenal secretion is to carry on the general metabolism of the body through oxidation. Every oxidation being accompanied by heat, and every animal having a normal constant metabolic process going on within its economy, the resultant oxidation due to the adrenal secretion ought to maintain a constant temperature under normal or constant conditions. This we know happens; variations do occur, following many changes—such as exertion or ingestion of food. This at once, however, creates a different ratio for metabolic change. Under normal conditions there are being manufactured products for oxidation (metabolism) at a fixed rate, and at an equally fixed rate adrenalin is secreted in the body to oxidize these products, thus giving rise to the body temperature. Now,

suppose more than the usual amount of adrenalin is suddenly introduced into the blood, as Dr. Reichert did with his normal dog experiment, what occurs? The same amount of products remain to be oxidized, it is true, but more of the oxidizing agent is present in proportion, and it ought to occur more rapidly. This would cause more heat than normally, consequently a rise in temperature—precisely the result obtained in the dog. But, carrying the idea further, if these products were oxidized ahead of time, so to speak, or that more was oxidized at once than could have been taken care of by the normal secretion, then it would take some time for enough of these products for oxidation to accumulate to be again acted upon by the adrenalin secretion. What would we expect during this interval of time? A fall of temperature; exactly what Dr. Reichert reports. From the fact that there is a small rise of temperature, inappreciable though it may seem, still this appears to me sufficient to show that the injected adrenalin is used up by the economy, and not, as the doctor supposes, "so minute as to be rapidly destroyed."

As for the explanation offered for the resulting phenomena in the case of the morphinized dog, we can follow the same line of reasoning, only prefacing our hypothesis by calling to mind that opiates arrest the functions of secreting glands. This being the case, we have two actions to consider. First, there has been cut off the usual supply of adrenalin secretion to oxidize (or to carry on metabolism) the body products, which are

now left to accumulate unoxidized; secondly, a new poison has been introduced which, either directly or through its changes, must also be gotten rid of. Applying the same principle as before, what do we expect? The natural flow of the secretion being withdrawn, hence oxidation retarded, we ought to have a fall of temperature and a decrease in heat dissipation. After the artificial introduction of adrenalin we ought to have a decided increase in temperature, because of the more than usual amount of products which have accumulated in the blood for oxidation, not to mention the additional feature of the presence of morphine. By referring to Dr. Reichert's table accompanying experiment "B," we find recorded the results expected under the oxidation hypothesis:

Without offering any explanation, the doctor remarks further on that "the results of foregoing experiments, together with those of a number of others not included in this article, show that adrenalin when intravenously injected in the dose of 0.0005 causes, as its most important effects, a more or less marked decrease in the pulse rate which is usually preceded by a transient increase, and followed by a marked increase, a more or less decided increase in arterial pressure, but which usually is transient, rarely lasting for more than a few minutes, although the rise can be maintained by repeated injections, and an increase of general metabolism and body temperature. The pulse and arterial pressure are the first to be affected, then the respiratory movements, and then general metabolism

EXPERIMENT B. DOG; WEIGHT, 12.8 KILOS. DOSE, MORPHINE SULPHATE, 0.01 GRAMME PER KILO OF BODY-WEIGHT; ADRENALIN CHLORIDE, 0.00025 GRAMME PER KILO OF BODY-WEIGHT.

(Table Compiled by Edward T. Reichert, M. D.)

	Hourly Heat Production.*	Hourly Heat Dissipation.	RECTAL. TEMP.		Gain or Loss (+ or -)	Mean Room Temperature.
			Beginning of Hour.	Ending of Hour.		
First hour before morphine	21.097	25.398	39.14	38.72	-0.42	26.4
Second hour before morphine	23.978	26.640	38.72	38.46	-0.26	25.6
Hour after morphine	19.908	21.444	38.46	38.31	-0.15	24.4
First hour after adrenalin.	22.742	22.230	38.31	38.36	+0.05	24.8
Second hour after adrenalin	24.090	22.554	38.36	38.51	+0.15	25.5
Third hour after adrenalin.	23.842	24.352	38.51	38.36	-0.05	25.7

*The units of heat production and heat dissipation are in kilo gramme degrees; the temperature records are in the centigrade scale.

and body temperature." These results tally with observations I have made with my patients. Of course, through internal administration, the effect on respiration is scarcely noticeable, except after large doses. The other results are less marked and slower after internal administration than after subcutaneous injection, and subcutaneous injection is likewise followed by a less rapid manifestation than intravenous injection.

At the close of the article, the doctor says that "the increase in respiration rate is caused by a stimulation of the respiratory center, since it occurs after section of the vagi." Undoubtedly there is some nervous relation to the results obtained, but I am inclined to think that the nervous stimulation is due to a physical effect for which I suggest this explanation. The increased respiration which results from an intravenous injection of adrenalin can most easily be understood, when the oxidation principle of this drug is applied to the physiological act in the lungs. The blood being now charged with more than its usual quota of adrenalin possesses an unusually high potential for oxygen, and after such an injection, the capacity of the air alveoli is called upon to the utmost to fulfill the demand made by the coursing blood in its passage through the alveoli. In order to supply this increased demand during the time consumed for the passage of the blood through the alveoli, the lungs must work faster.

In all cases of dyspnoea reported through overdosage, none were grave—all discomfort disappearing in less than five minutes. All of which might

be explained by the fact that the blood, after being oxidized under high potential, distributed its oxygen to the tissues, and by the time it returned again to the pulmonary circulation, the potential of the adrenal extract was so reduced that there was not the same demand for oxygen as before.

The only other cases of ill effects I have found in the literature following the use of adrenalin are reported by Emil Mayer, M. D., New York (*Phil. Med. Journal*, April 27, 1901, p, 819). Sloughing is said to have occurred in several instances where adrenalin was used in rhinological work. This may have resulted from either of two causes, or a combination of both. First, the solution may have been so strong that the ensuing oxidation amounted to a burn, or the parts may have been, owing to their anatomical construction, practically cut off from blood supply after vascular contraction had been produced by adrenalin.

It is not without some trepidation that I suggest the internal administration of adrenalin, because its intelligent and successful application, especially when given over an extended period, depends upon a frequent examination of the blood and the estimation of the number of red cells. Experiments seem to indicate that adrenalin has opposite effects on the blood; there is a partial hæmolytic action observable clinically as well as in the laboratory. At the same time there appears to be a regenerative process. The administration of adrenalin is accompanied by pronounced leucocytosis as well as an increase in hæmoglobin. The increase in hæmoglobin to the casual

observer would seem to be only apparent as the number of red cells in the majority of cases decreases. But if adrenalin be discontinued the red cells increase very rapidly, even beyond the original count, and at the same time the hæmoglobin percentage will still be found to be on the increase. Hence, the ratio between the red corpuscles and the hæmoglobin percentage is disproportionate, as the color index does not decrease, but, on the contrary, increases. This fact, then, teaches that in those cases where adrenalin is given for a prolonged period it is advisable to discontinue the medicine every seven to ten days for a period of two or three days in order to permit the red corpuscles to generate. The hæmolysis occurring in human blood may be attributable to the fact that the marketable extract being obtained from cattle is hæmolytic as regards human blood, and that an extract from human glands would not act in the same manner.

Idiosyncrasies against adrenalin occur just as with other drugs. I have known instances where the entire family could not take it. The greatest difficulty is to adapt the dosage to the individual. Frequently patients who have had too large a dosage carry on most vehemently against the medicine because of its effects—nausea and headache. Of course, the ideal dosage would be a few minims every half hour, but this is impracticable in the greater majority of cases. So the maximum dose to be repeated at reasonable intervals had to be decided upon. This was found to be ten to fifteen drops every two hours. In general, as large a dose as the patient

can withstand ought to be given; the dose can well be regulated by the fever. The higher the temperature the more adrenalin can be borne. I have given twenty minims every hour without nausea or headache, but as soon as the fever falls the dose must be decreased, both in interval and amount.

Subcutaneous injections act more directly on the heart and fever and produce a weak sensation in the lower limbs. It is a noteworthy fact that temperature, due to whatever cause, is rapidly reduced by subcutaneous injection of adrenalin, the pulse likewise returning to normal but at a much slower rate. By far the best systemic effects are derived from internal administration. It seems to excite all the organs to their best functioning capacity by supplying them with blood rich in oxygen. Internal administration in full doses produces nausea and frontal headache. When inhaled the full physiological effect is followed by immediate dizziness and a sensation of coolness and roominess in the lungs.

Adrenalin invariably produces a sound, healthy sleep. If patient is in the habit of dreaming it generally causes the disappearance of dreams. If, on the other hand, patient is habitually a sound sleeper, it often causes him to dream. In the one case the accumulated toxins which disturb the brain would appear to be neutralized; in the other case a possible explanation would be that the sleeping brain is excited to activity by being fed with a rich oxygen-laden blood. Increased appetite invariably occurs when adrenalin is administered.

In my experiments and in my practice I have used several preparations of the adrenalin extract, but found that I had practically to limit myself to one, as all could not be promiscuously compounded into mixtures there being, according to my observation, a considerable range of stability. Even the most satisfactory product on the market when combined with syrups, and especially in the presence of alcohol, is accompanied by fermentation.

By a process of deduction and with some of the clinical evidences I have enumerated, I feel confident in suggesting the use of adrenalin internally in all infections, on the principle that it oxidizes the toxins and converts them into benign waste products ready for elimination. Hence, I suggest its use in tetanus, scarlet fever, diphtheria, pneumonia; in short, the entire category of infections. In typhoid, not only to arrest possible hemorrhage, but also to combat the toxins in appendicitis for its local as well as for the constitutional effects. On account of the conditions presented in Addison's disease it is pre-eminently demanded in this malady. No agent I am aware of increases the hæmoglobin percentage as markedly or as rapidly as adrenalin, hence it is indicated in anemias of all kinds, likewise in neuroses and so-called "stomach cases" due to malnutrition. Syphilitic anemia, as well as the disease itself, has been found to be benefited with adrenalin. In those cases where a reconstructive tonic is needed, adrenalin can well replace with far greater advantage the arsenical and iron preparations. The virulent toxins of severe burns ought

to yield to adrenalin, here the treatment might be applied locally also, just as in chronic ulcers. The packing of tubercular joints and the specific tertiary ulcers with a weak solution of adrenalin containing soluble iodine, ought to be valuable. In morphine and opium poisoning, and other poisons acting directly upon the heart, likewise syncope due to chloroform or otherwise, would seem to demand adrenalin from its well-known action on the heart. Owing to its astringent properties adrenalin is indicated in hemorrhages of all kinds: postpartem, hematemeses, hemoptysis and in the irregularities and flooding of the menopause. Septicaemia would seem to call for adrenalin in its treatment, and as a prophylactic measure its administration after operations hypodermically as well as per os is indicated, aside from its value as a reconstructive tonic and heart stimulant. To the dermatologist adrenalin, especially when judiciously combined with other remedial agents, will prove invaluable in the treatment of certain forms of skin affections. Besides the usual indications for adrenalin in ophthalmology, it is useful where systemic treatment is required. It has been found to be decidedly advantageous in syphilitic iritis, where local application was supplemented by internal medication with adrenalin. In the diseases of the respiratory tract, inhalations of diluted solutions are productive of more gratifying results than in any other conditions.

In concluding, permit me to call special attention to the therapeutic value of adrenalin in pneumonia. Because of the pathology of pneumonia,

where the process of aeration of the blood is choked it has a peculiar fitness. The oxidation process, whereby pathogenic elements are converted into benign waste products, resulting in fever, instead of being pounced upon with hæmoglobin-reducing antipyretics, ought to be assisted in its endeavors. This effect ought to be accomplished by supplying the organism with the means of obtaining oxygen, free or combined, in such a state that it can immediately be utilized by the economy for oxidizing deleterious substances. Inasmuch as the red blood corpuscles are only the carriers of oxygen, and the adrenal extract endows them for their affinity and potential for this essential gas, is it not reasonable to assume that by maintaining or increasing this supply in fevers, especially in pneumonia, where the usual avenues of oxidation of the blood are blockaded, that we are assisting nature in her efforts to supply oxygen for oxidizing harmful agents? Whether the presence of this adrenal secretion in the blood should be accomplished through excitation or stimulation of the adrenal body by means of drugs, or be injected subcutaneously into the blood stream direct from the marketable products, depends upon conditions and is a question to be decided. From my experience, the internal administration of the extract is productive of satisfying results; more than that, heart failure, which is the dreaded bugbear of pneumonia, with this treatment assumes a minor consideration, because instead of bolstering up the heart with strychnine, whisky and other drugs, we can rely on nature's own heart stimulant, which

likewise is eliminated without ill-effects. Certain drugs have a decided effect on adrenal secretion, and it may be a wise procedure not to allow these glands to remain idle by permitting an artificial product to do the work; moreover, there is an advantage in having present in the blood as much human adrenal secretion as possible. The efficacy of the lately advocated potassium iodide (Altshul) treatment depends upon the action of the iodine on adrenal secretion for combating the fever. It is a well-known fact that but a small amount of the iodine in combination with potassium is assimilated. Hence, I advise combining the suprarenal substance with an iodine solution in distilled water. However, indiscriminate admixture of iodine with any and all of the marketable products of adrenal extract must be guarded against, because a chemical disintegration ensues when this is attempted with some of the preparations.

Considering how rapidly the adrenal extract is dissipated in the body and how often the dose may be repeated, it seems to me a slowly dissolving tablet, with some easily assimilable iodine compound, as a core, would be a valuable addition to our therapeutic armamentarium. The powdered or crystallized extract could be suspended in gelatin or some other slowly dissolving and preservative substance and in this way the suprarenal extract could be paid out slowly along the course of the intestinal tract. Thus, while preventing the entire dose, which, in some cases must be large, from acting immediately; it would likewise save the mucous membrane from a concentrated action at

one point by paying out small quantities all through the course of the alimentary canal.

One of the proprietary concerns placing the active principle of the suprarenal capsule on the market cautions the profession against subcutaneous injection of the same. I have given injections of this substance numerous times and have yet to see the slightest sign of irritation to follow this mode of administration. This I attribute principally to the fact that I have always diluted the solution

with equal parts or more of normal saline solution or distilled water, and while injecting empty the syringe slowly, drop by drop.

With the parting caution that success in the use of adrenalin depends on a careful adaptation of the dose to the demands of each individual—that as large a dosage as can be borne is to be prescribed—and that a watchful eye must be kept on the ratio of the hæmoglobin to the number of erythrocytes, I leave the welfare of adrenal therapy in your hands.

LEGAL VIEW OF BOARDS OF HEALTH.

BY A. M. MCALESTER, M. D.

President State Board of Health.

Physicians often hear persons afflicted say, "your health board is interfering with my rights as a citizen of this free government; you are sending your local physician to quarantine my home, forbidding ingress and egress; my business interests suffering, my children kept from school, etc."

No matter how free and liberal a government may be formed, government is necessary to control; control implies a surrender of some of our rights; you cannot form a compact with your neighbor without a surrender—a mutual surrender—of rights for mutual preservation; this implies mutual protection of all unsundered rights and enforcement of all surrendered rights, with a body of some kind to enforce and be a final appeal. For convenience, in all matters pertaining to public health, we speak of the controlling body in such a case as a board of health, having control of

all matters that would prolong human life and mitigate human suffering. What higher prerogative could a government have than to protect the lives of her subjects? This is the greatest reason why government is formed. This carries with it boards of health in this country, local, state and national boards of health, each supreme within their sphere.

The compact between the states implies surrender of rights, and when a state is admitted into the union of states, those already in have a right to know her organization, to know that that organization is protective of human life. There must be a manifestation of intelligence to protect her own citizens and thus protect other states before entering into this mutual compact of states.

Thus, to bring the matter home, you reduce all contagious and infectious diseases down to individuals, with a local health officer in control—mutual

protection, facilitating and making safe our commercial relationship with the world.

Hence, the advance of science, medical science, has opened up a new field as to sanitation. The ship laden with cholera germs can be anchored in harbor, disinfected, made clean and in a few days be reloaded and sail out upon the high seas,

To come to our homes, we often see school houses placarded, "Closed on account of scarlet fever," etc. With an efficient local health officer, the unfortunate child could have been quarantined at home and inspected and returned to the school room that had long ago been cleaned and disinfected when the first case broke out, and thus made safe. If society has a right to imprison a vicious man, thus protecting say one human life, how much greater the necessity of protecting large bodies of persons, especially innocent children, from contagious diseases.

That legislation is needed in this state as to a new health law goes without question. This should engage the attention and thought of every member of the profession. The people rightfully look to you as the exponents on all matters pertaining to health. You, as a physician, have a legal exponent upon such matters in the form of a state board of health. This board is your creature.

Under the law of this state this board must present to each legislature assembled such changes as the board deems to be the best interest of the people. It is then very clear that this society must present whatever view is entertained through this board; otherwise you go to the legislature as mere

petitioners. Antagonism means defeat, defeat means loss of human life. The state association, district and county associations and the profession individually, should inculcate upon the people the great and urgent necessity for a new health law.

It should be taught that all contagious diseases are amenable to preventive measures directed by local boards of health. That the great water supplies of this nation are being rapidly polluted by commerce and the growth of her people, all in their sphere legitimate, while the beautiful spring, clear as crystal, once pure as the driven snow, is laden with deadly germs — say of typhoid fever; some sewage has contaminated it. Questions of hygiene stare you in the face at every step as you progress. Wherever you go you have the right to know that you can obtain a drink of pure water.

Then let this association, through its legislative committee, meet the state board of health and formulate jointly a new law—a law abreast with the civilization of the age, containing water, contagious diseases and vital statistics under executive control, local board of health subsidiary to state board and that to the hospital and marine public health at Washington, D. C., as the great controlling body. Let every member do missionary work. Let him see that his representative and senator to be elected this fall are pledged to support this measure. Let these gentlemen understand that an intelligent constituency means to hold them responsible for the passage of a law coming from the guardians of health; that it is as much their duty to support such a

measure as it is to protect their lives and property from criminals; that these criminals parading in bacterial uniform, multiplied by the billions, are far more dangerous to human life from their occult living. Let these living germs be dug from their anaerobic homes and placed in the broad sunlight and thus robbed of their virulence.

DISCUSSION.

Dr. Herman E. Pearse, Kansas City.—My experience in the Hall bill has given me some insight into the difficulties that we labor under when we attempt to better our condition. All the voting power of this state association will not put one man on the state board of health. We have always had one or two, and occasionally three active members on the state board of health, but we have no means by which we can demand the place of a man there. But this is one thing we should take up and take it up intelligently and systematically, and we should see that our county delegation take up the character of the men sent up. It is the people and not the doctors that the politicians listen to. I think Dr. Allen is right when he says we should educate the public.

Dr. George Halley, Kansas City.—While I accord with everything that has been said, the remarks of Dr. Allen are particularly appropriate. There is a pressing need and a wide field, particularly in the large cities, regarding national legislation, and, as a body, the state of Missouri can do no better than memorialize congress. There was a bill passed by our friend, Ed Butler, I believe, that has not received the attention it

should have. The filthiest thing that any people can do is to turn all their filth into the waterways and then drink it. It has created more disease than any other factor in our municipal life. Fort Leavenworth is simply a pestilence hole. They drink the water two and a half miles below where they empty in their sewage. The post surgeon said they could draw water from the faucet at any time and get the colon bacillus in it. Kansas City is taking water twenty-four miles below and there is no time when you cannot find the colon bacillus in the water. St. Louis is taking the drain water from Chicago and all the towns along the river. When I went to Kansas City there was not a drain in the city connected with the water closets, now they are all connected. There must be some national legislation on the emptying of filth into the waterways. I move that we appoint a committee to memorialize congress for a national law and that it be enforced by the national authorities.

Dr. J. M. Allen, Liberty, Missouri.—We have had nothing that so interested me as the report of Dr. MacAlester. The question for us to decide is how are we going to meet the situation. The politician is always on the ground, but I have great faith in the voters of Missouri and I have great faith in their being educated. We have ample opportunity to educate in Missouri. In our county we have a public health meeting every year to which all are invited. We are accomplishing good work. Suppose every county medical society sets aside one day and invites the public to come and hear these things. As it

is, the public does not know anything about it. Their ears are being filled all the time by the talk of the politicians. You can reach them in this way, and there should be resolutions passed here that every medical society in the state of Missouri devote one day to a public health meeting. They will know then you are in earnest. Truth will prevail. We are to blame that we do not have the kind of legislature we need. Put your shoulder to the wheel and let every district and county society hold such meetings and invite the public, get the best speakers and you can soon enlist the whole community. Again, in our county, when the teachers have their institute, we have some one present and arrange to have an article on public health. Suppose you could educate up all the teachers in the state of Missouri. They will talk it all winter. I have never been to an institute yet that

they did not unite with us most heartily. Believing, as I do, in the integrity, the honor and the human feeling of the people, I believe all we have to do is to get to work and educate them a little and they will do the rest.

Dr. A. W. McAlester, in closing.—Perhaps some of you gentlemen have not watched the course of legislation. In 1902 there was a statute placed upon the books establishing a national board of health, and this law still exists. The manner in which that was done, some thirty states got together and agreed to ask every congressman and representative to work for this law. They asked if it was for the benefit of the citizens and the answer was yes. The bill was passed and it is a law now, and the surgeon general has called a meeting for 9 o'clock, June 3d. This is the only legal national board of health in the United States.

SYMPTOMATOLOGY OF PROSTATIC DISEASES.

BY J. LELAND BOOGHER, of St. Louis.

Having so frequently had my attention directed to symptoms which were relieved by prostatic treatment from which the patients had suffered, it occurred to me that it might be of value to describe some of the symptoms often mentioned by patients, which had frequently been treated locally, unnecessarily, without their real cause having been discovered. Prostatic disease is usually of such insidiously slow development that symptoms arising in distant parts of the anatomy are, I believe, often supposed to be due to other causes, and for this reason the suffering is al-

lowed to go unrelieved, when, should the cause of the disturbance be discovered, the pains could be cured by direct treatment of the prostate gland.

In the many prostatic conditions, the symptom complained of most frequently is the discharge at the meatus known as gleet, and in this condition the anterior urethra can be treated until both patient and physician are tired of the effort and no result accomplished, but treatment of the prostate will speedily produce relief. The heat and tenderness, and often constant pain in the perrineum,

are the results of prostatic disease and are associated with mushy infections of the prostate. Frequency of urination is often associated with this condition, and pain in the lumbar region, most severe on rising, is a very frequent complaint. In these mushy conditions of the prostate, the result of infection, there is sometimes a general malaise and low fever and a nervousness of more or less severity, and a tired feeling which a night's rest does not seem to relieve. Often in this condition the patient is directed to the necessity of a physician's care and by the milky or cloudy condition of his urine, which they consider indicates diseased kidneys. This is more marked after a horseback ride or an unusual indulgence in alcohol or venery or physical excess of any kind. In these conditions spermatorrhea is often complained of, and is at times copious during or after a passage from the bowels, and is sometimes accompanied with blood. Seminal emissions, frequency of erections, early ejaculation or pain on emission, may be due to the prostatic disease. When the above mentioned symptoms are complained of, it is always advisable to examine the prostate and its secretions, notwithstanding the declaration frequently made by the patient that he has never suffered from a genito-urinary disease.

The few symptoms I have mentioned are more often the result of mushy prostatic conditions, the result of infection, but may occasionally accompany a nodular or fibrous prostate, but as a rule, the symptoms complained of in nodular or fibrous conditions are in more distant parts of the body and the cause of complaint

is not so suggestive to the physician. I have frequently examined the prostate where the symptomology indicated a mental or nervous disease and found a pathological prostatic condition, which, under treatment, was relieved and all mental and neurological symptoms disappeared. These cases have frequently been referred to me by the neurologist when the patient supposed his genito-urinary organs were in normal condition.

In the nodular or fibrous conditions the mental stamina and force of will is sometimes greatly impaired and the lack of energy so noticeable in these cases is of considerable moment, especially where work and hustle are necessary in a man's life. This is most frequently complained of about the age of forty-five years, when one should be still passing the upward milestones in life. The active business man, when in this condition, feels that he can no longer exert the energy and push necessary in his avocation; the man of large affairs finds, after a few hours' work, that he is mentally exhausted and those engaged in active business or athletic exercise can no longer continue at the previous pace, and the symptoms are seldom referable to a prostatic condition, the cause of which has long since been forgotten. Slight cares, once easily thrown aside, are very irritating and the disposition is more or less affected by a deranged prostate. One symptom that I consider of great importance is the ocular symptom so frequently complained of, which was first called to my attention by Mr. Charles Reilly, of St. Louis, an optician, who has frequently referred patients to me for prostatic treatment when the only

symptom complained of was pain in the eyes, accompanied by water, and the patient's desire for glasses to assist sight. Prostatic conditions cause an irritation and consequent contraction of the sphincter muscles of the urethra and rectum disturbing the equilibrium of the sphincter sympathetic centers and a consequent contraction of the sphincter muscles of the eye, which produce an irritation and resulting irregular accommodation and apparent astigmatism. At times to the extent of 1.50 dioptres, but usually from 0.50 D to 0.75 D Cyl. In all cases the Cyl will improve vision, but the patient can see as well at any axis varying from 20° to 30°.

It might be of some interest to mention a few cases showing the variety in results that have been obtained by the same oculist, examining the same case at various times. Mr. V. G., thirty-five years old, of St. Louis applied to Dr. E., a well-known oculist, complaining of a sandy feeling in his eyes and a constant discharge of water and severe pain in outer canthus of left eye. Dr. E. prescribed glasses as follows: Right eye, plus one-half dioptre cylinder, axis 90, combined with one-half degree prism, base in; left eye, plus one-half dioptre cylinder, axis 90, combined with one-half degree prism, base in. At the end of four months the patient having received no benefit from the use of the above glasses, appealed to another well-known oculist, who prescribed as follows (please note in these glasses the cylinder to correct the supposed astigmatism was omitted): Right eye, one-half degree prism, base in; left eye, one-half degree prism, base

in. The cylinder was left off, showing that signs of astigmatism had disappeared, as this condition varies during the patient's trouble.

At the end of three months' use of the second pair of glasses, without relief, he was referred to me for prostatic examination. I found in examination of his prostate that it was nodular in character, about the size of a lemon, and on examination of the prostatic secretions, contained a mixed infection. The patient had suffered from several attacks of gonorrhea, but for the past three years had not found it necessary to pay much attention to his genito-urinary organs. He had also noticed that his energy was greatly lacking, and that after copulation he suffered with great pain and tenderness in the perenium, and that for the next day or two his eyes seemed to be very much worse. A short time after treatment of his prostate he dispensed with his glasses and has not used them for the past four years. Mr. H. W. H., age forty-eight years, southeast-Missouri, had consulted several oculists for relief of blurred vision, discharge of water from the eyes and constant pain and irritation in outer cathus of left eye. He was referred to me by an optician, from whom I heard that he had had the following prescription filled:

Dis. vision required, plus 1.50 S.

Reading required, plus 4.00 S.

His corrected formula for the right eye was: Plus 1.50 S., combined with one-half dioptre cylinder axis 95; left eye, 1.50 S., combined with one-half dioptre cylinder axis 130, vision 20:20.

It was found by the optician on

revolving cylinder that the patient could see with the cylinder at an axis of from 95 degrees to 130 degrees in the right eye and from 130 degrees to 150 degrees in left eye. After the optician had questioned the patient, he found that he had suffered from genito-urinary trouble and he was referred to me for treatment. Six weeks after treatment, the optician examined the patient's eyes and found that all evidence of astigmatism had disappeared and all irritation of the eyes had been relieved. On examination of the above patient I found an enlarged fibrous condition present, which yielded but very slight secretions, which upon examination disclosed no germ life. On questioning him, I found that he frequently experienced pain in urination. Copulation had ceased to be a pleasure and was exceedingly difficult of accom-

plishment, and then only at very rare intervals. He frequently found it impossible to attend to his desk work longer than an hour or two without great exertion. He had also noticed that his memory was failing him. I had the pleasure of a call from this gentleman a few months after I had discharged him as cured, and he said he felt in every way like a new man.

I have had so many of these cases that time nor space would permit me to enumerate further, and as there is great similarity in all these cases, it is not necessary to do so.

I have brought this subject before this Association because I believe that some of the symptoms I have enumerated have not been generally recognized as being the result of prostatic diseases, and hope the suggestions I have made will be of some benefit to some of my brother practitioners.

RESECTION OF THE HIP JOINT.

BY ERNEST LOWREY, M. D., Excelsior Springs, Mo.

Mr. President and Gentlemen—I want to invite your attention to a few practical points in connection with the resection of the joint at the hip, and present to you a case operated on twenty-one days ago today.

The history of the resection of joints dates from 1783, when Henry Park formally proposed the operation for the removal of disease.

In 1786, Morue first performed it, and became its staunch advocate as a method of treatment. Little was done, however, until Symes in 1831 in the elbow, and Ferguson in the hip, knee and wrist, made use of this operation as a conservative method of treat-

ment. Since this time this method of treatment has been wonderfully advanced and has been adopted by the ablest surgeons.

A resection is a removal of a portion of the skeleton without great sacrifice of the tissues of the soft parts. Applied to joints it has for its object the more or less complete removal of the bones forming the joints, the preservation of the sensibility, contractility and vitality of the soft parts influencing the joints and the ultimate restoration of motion or the production of ankylosis.

The resection of the hip joint was first performed by White for deform-

ity in 1818, for disease by Houston in 1822 and by Ophenhimer for gunshot injury in 1829.

Resections are classed as complete when the acetabulum is partly removed together with the femur, as partial when only the femur or acetabulum is removed.

The indications for the operation are:

First—Some cases of gunshot injury. More conservative methods are now recommended with our new projectiles, and operative interference is not urged unless it will expedite wound healing.

Second—In tuberculosis. Where operative procedure is not to be delayed, but earlier interference to be recommended.

Third—In deformity from injury or disease. Here the partial or complete resections are alone indicated where osteotomy cannot correct.

Fourth—In old dislocation from disease or traumatism. Where partial operations are quite sufficient.

Fifth—Intracapsular fracture of the neck of the femur, followed by disability and pain. Here the partial resection confined to femur is sufficient.

Sixth—In dislocation of head and fracture of neck of femur. Here removal of dislocated head is sufficient.

Seventh—Congenital dislocation in adults, which has failed of reduction by manipulation.

Eighth—In acute infectious arthritis. Here arthrotomy, rather than resection, will be found more beneficial.

I shall not enter into the statistics of this operation as to mortality or its functional results, suffice it to say

that shortening is much less by the operative treatment than the conservative. In the older cases the average shortening is not increased from operative procedure over that which existed at the time of operation.

Functional results in these cases must be considered with reference to the condition of the extremity at the time of operation, and has to do with (*a*) shortening of extremity due to atrophy from non-action; (*b*) slipping upward of head of femur on the ilium; (*c*) contraction of the soft parts; (*d*) atrophy of musculature of pelvis and femur.

In the foregoing remarks I have quoted from the leading authorities of the day, and the case here presented is Mr. H. M. S., age twenty-eight years, single, American, family history negative; personal history, fifteen years ago was thrown from a horse, and soon after complained of pain in knee joint, and continued to do so for three years. After that he would often fall in walking and complain that his knee had given out. He was put to bed by his physician and limb extended by weight and pulley. Three months later, while still in a recumbent posture, an abscess formed and pointed in Scarpa's triangle, and was opened. He was then allowed to go on crutches, with weight in sole of shoe. The sinus continued to discharge, hip became ankylosed and very painful and continuously atrophied, and shortened.

I saw him first on the first day of July, 1904. Physical examination, negative, except as to left leg and hip, and a temperature 100 and pulse of 98. His left leg was about half the size of the right and five inches

shorter. Very painful, completely ankylosed, though the displacement was not great. I suggested an immediate operation, and discussed with him amputation at hip, and complete resection, my opinion favoring the latter.

He consented, and on the 4th of July, having prepared a room in his house, in our usual manner in the country (removing everything from the room, scrubbing the floor and walls with strong bichlorid solution, etc.), I opened hip by Langenbeck's method, slightly modified.

An incision a little anterior to posterior superior iliac spine down to and behind the great trochanter and followed axis of femur. Joint opened and luxated, and found as you may see from specimen; the head of the femur was completely necrosed and

almost wholly absorbed, and the whole of the upper part of shaft and neck, with the great trochanter, was involved in the diseased process. I sawed through shaft just below trochanter, first severing its attachments, and with a sharp curette removed the remains of what had been the acetabulum and scraped away all of the diseased innominate bone. Put in drainage, closed wound and put patient to bed.

His recovery was uninterrupted and uneventful. The wound closed by first intention. He never had any fever. Removed drainage on fifth day and sutures on ninth. He now has considerable motion of limb, is able to abduct it and is around on his crutches.

The microscopic findings show the condition to be tuberculosis.

SUPERSTITIONS PERTAINING TO THE BIRTH OF THE CHILD.*

The old saying, "where reason stops, superstition begins," does not always hold true. The best of the country people, particularly representatives of the fair sex, are filled with superstitious ideas.

Around the all-important event in the life of the individual, "the birth," is woven an intricate wreath of old myths and usages. The following are superstitions which are encountered even today in upper Austria, Salzburg and vicinity:

When a woman is pregnant she should not put her hands into unclean water, otherwise the child will have

ugly hands; she should rub nothing with the apron which she wears, for if she does, the child will have an eruption on the scalp. If she wears flowers on her breast the child will have offensive breath.

If the pregnant woman has a special desire for fish, the child will die or the birth will be premature. It portends the death of the child when the mother dreams of a dead fish or hears the cry of the night owl.

If the mother during pregnancy purloins anything, the child will ever be unable to resist the impulse to steal. If the child-bearing woman crosses a garden spot or a field, nothing grows thereon for several years, or the growth decays. If the woman

* Translated by Dr. Franklin E. Murphy, Kansas City, Missouri (in *Muenchner Medizinische Wochenschrift*, August 9, 1904.)

dons a black apron, the child will be timid.

If at the beginning of the ninth month, the prospective mother on her way to church first meets a man, the child will be a son, if a woman is encountered she will bear a daughter. If she meets no one, she will not bear a second child.

If two nursing women drink together, one drinks the other's milk away.

The child coming into the world face upward will show criminal tendencies.

At confinement the woman should have on a piece of the husband's clothing, that the labor will be easier. When women enter the room during the labor, they must quickly remove their aprons and describe a cross on the abdomen of the lying-in woman and then quickly don the aprons again. They do this to hasten the labor and to make themselves fruitful. They should also burn some twigs from the broom which was used to sweep the lying-in room.

At severing the cord, the midwife must say "my child now I cut wit and sense in the name of the Father, Son and Holy Ghost." The new mother says "amen" and must bite into a raw onion three times, be raised in bed three times while she blows three times into each fist. This hastens the afterbirth and lessens the pains. The afterbirth must be buried under a green tree, that the woman remain fruitful.

To provide against the attacks of the evil one, the trousers of the husband must be hidden in the bed; for the same reason the woman, at the

approach of night, should not be left without a light.

If the new born be rubbed with the afterbirth it loses birth marks from face and body.

If one lays three pennies in the first bath, the child will never be without money; if a penholder, the child will learn easily; if an egg, the child will have a beautiful voice. The three pennies and the egg must be given the first beggar.

The smaller the pitcher from which the water is poured into the bath tub, for washing a girl baby, the smaller will be her breasts. As soon as the child is raised from the first bath, the midwife should spit therein three times, for then the "evil eye" will not harm the child. This water is then, as with the afterbirth, disposed of under a green tree.

For the first six weeks the child's clothing should never be hung over a pole over night, otherwise the child will have inflamed joints.

A child should never be weaned from the breast when in summer the fields are covered with grain, nor in winter when the fields are covered with snow.

When the new-born is first brought to you, you should give it three, six or nine eggs, hold them three times to its mouth and say, "When the hen begins to cackle, then begin to prattle."

If the child's hair be cut before the seventh year, the understanding is cut away with it.

A new born child should not at first be laid upon the left side, otherwise it will be left handed.

If, at the birth of a boy, Venus be

the morning star, he will have a young wife; if evening star, an old wife. The seventh son is able to heal, and is fortunate in planting.

Children born on Sunday are lucky and can see ghosts. If the new born does not nurse, one should feed a black dog in the room.

Lightning never strikes in the vicinity of a child which sleeps during a thunder storm.

The first walk with the child should be to the church, where at the altar it is to be blessed, that the evil one will shun it. From the church the child is taken to the godfather, who gives it a bread roll, an egg and a glass of wine. With the egg the child's gums are rubbed, that it will have no trouble in cutting teeth.

Visiting women make the sign of the cross three times over the mother and child; this protects from the might of the evil one.

Wednesday or Friday should not be chosen for the consecration ceremony. The mother should first take together, to a place, all clothing which she will wear at this ceremony, for then the child will observe order life long.

If those to be blessed, step over a broom before they go out, no accident will befall them. If the person who lights the candle to be used at the ceremony is a man, the next child will be a boy; if a woman, the next child will be a girl.

If a pregnant woman visits a brewery, the beer is spoiled; if she goes to the well, the water becomes murky; if she visits a wine cellar, the wine is spoiled; if she visits the bakery, the bread sours.

She does not have her hair cut, nor have another dress her hair during

pregnancy, for in the first instance the hair will not grow, and in the second instance the hair falls.

If a nut tree is to become very fruitful, a pregnant woman is to take the first nuts from the tree.

A woman dying in the pregnant state, her scissors, needlecase, thread and thimble must be buried with her; otherwise she will return for them.

When the pregnant woman has washed clothing and immediately thereafter upsets the vessel used, she insures herself an easy labor.

So long as the woman remains in bed, nothing is loaned from the house, for during that period things may be bewitched.

When one asks after the mother and child, the answering person always adds, "God protect them," for the questioner may be a witch, and can be disarmed in this way only.

When a knife, upon the blade of which nine crosses have been imprinted, is stuck over the door of the lying-in room, the woman cannot be bewitched.

If the new mother believes she is disturbed by witches, she has a dirk or open knife put into the bed or cradle, point up, that the witch shall be transfixed when she pounces upon the mother of the child.

The pregnant woman who crawls under the neck of a horse, must carry her child a year; she can, however, release herself from this bond by letting a horse feed from her apron.

If, during the period of gestation, the woman has strange desires, she must look at her finger nails or the sky, or she must seize a certain part of the body, that the child will have no birth marks.

In some villages, after the burial of a woman dying in pregnancy, a small dish and a spoon is laid for six weeks upon the bed, that she may rest peacefully. It is believed that she is there unseen and eats.

There is also the belief that no pregnant woman should pass under a wagon pole; otherwise the child will come to the hangman.

When a woman is unfruitful, her naked body should be wrapped in a table cloth that has done service at a baptismal feast.

One should not permit a child to be irritated or excited before the first year; if so it will surely have freckles.

When the grandparents leave the room on the way to the baptism, they say, "We take away a heathen and bring back a Christian."

On the christening day, the godparents must wear clean shirts, turned

inside out. No witch can then reach the child.

If the child-bearing woman follows a funeral procession, her child will be timid.

The sponsors must eat of every dish at the feast; if not, the child will forever have a distaste for the neglected dishes.

In Italy small, fine cut glass bottles are sold which contain a splinter, richly mounted, from the coffin of St. Aloysius. The woman in labor holds one of these bottles in her hand, that the labor be rendered easier. If she holds the bottle in the right hand, the child will be a girl; if in the left hand, a boy is born.

One may see such finely wrought "Aloysius bottles" in the vicinity of Salzburg, and in some of the best families in Vienna such bottles, not at all lacking in artistic worth, may be seen among the heirlooms.

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EDITORIAL.

TYPHOID FEVER.

Washington City has been warned by the district board of health of the danger of an epidemic of typhoid fever. The source of danger is at Mount Savage, near Cumberland, Md., where one hundred and twenty cases of typhoid fever exist. The town is drained by a creek that

empties into the Potomac, the water supply of the capital city. It seems to be a position well taken, that typhoid fever is essentially a rural disease and that its propagation is in general from the country to the town, rather than from the town to the country. Pollution of water and milk, the two most prominent factors

in the dissemination of typhoid fever should be guarded against.

The original plague spot, the privy, is seldom cleaned and its vault (where one exists) seldom or never disinfected. As a precaution against spreading of typhoid fever the privy should be located carefully, screened so as to keep away flies and disinfected daily.

FOOD SUBSTANCE IN WINE.

That glycerin and cream of tartar, which are found in wines, are foods, has long been recognized. A third substance, a food of great value, has been recently added, namely, a lecithin, one of a class of substances found to be especially promotive of rapid growth. Dr. Varenne, of the Paris Faculty of Medicine, says this valuable vital principle was discovered in the yolk of egg, which contains it in large proportions. Yolk of egg is, as every one knows, a food of the first order, and Gobley, the celebrated chemist, has published numerous interesting papers about it. There are vegetable as well as animal lecithins. The lecithin that seems to be most widespread is "steric lecithin," whose chemical name is "distearo-glycero-phosphate of trimethyl-hydroxylamine-amonium." This lecithin is also met with in milk, corn, peas, oats, etc. Lecithin exists in very appreciable quantities in natural wines, and the more as these are richer in alcohol. Here, however, the distinction must be made that only wines rich in alcohol by fermentation contain lecithin. Weak wines artificially strengthened by the addition of alcohol after fermentation do not contain it in appreciable amount.

Again, as lecithin alters at about 50°C, the so-called pasteurized wines lose this principle during heating. Pink and white wines, which have fermented without the pulp and stones, contain no lecithin. Hence the conclusion that wine is a real food, not only from the alcohol, glycerin and cream of tartar it contains, but especially from its lecithin.

OBITUARY.

Charles Thomas Varnon, M. D., graduate of the medical department of the Missouri State University,



1876, died at his home in Mexico, Missouri, July 24, at 10:30 P. M., of chronic Bright's disease. Dr. Varnon was born in Nicholas county, Kentucky, November 3, 1850. He began the practice of medicine at Thompson Station in 1876 and moved to Mexico in 1891, where he continued to practice up to the time of his fatal illness. He was president of the Audrian County Medical Society, coroner of

Audrain county and health commissioner for the city of Mexico, Missouri.

He leaves a widow and one daughter.

COUNTY SOCIETY NOTES.

BOONE COUNTY MEDICAL SOCIETY.

Dr. R. S. Austin, President.
Dr. Guy L. Noyes, Vice-President.
Dr. J. M. Fisher, Secretary-Treasurer.
Dr. J. E. Thornton, Delegate.

The Boone County Medical Society held its regular meeting in Hallsville, August 1st, Dr. R. S. Austin in the chair. A paper on "Typhoid Fever," read by Dr. J. E. Jordan, was discussed by Drs. McComas, Gentry, Newman, Fisher and Miller.

Dr. Walter McNab Miller reported on the microscopic findings of an epithelioma removed from a young man's left tragus, by Dr. Guy L. Noyes.

Cases of osteomyelitis of the temporal bone, tumor of spermatic cord and of heart lesion were presented and discussed at length.

Dr. Wm. E. Angell, Dr. Guthrie and Dr. Haas were elected members of the society.

The next regular meeting will be held at Sturgeon.

J. M. FISHER, Reporter.

CALLAWAY COUNTY MEDICAL SOCIETY.

Dr. D. H. Young, President.
Dr. N. F. Baker, Vice-President.
Dr. W. M. Bayliss, Vice-President.
Dr. J. F. Harrison, Secretary.
Dr. G. D. McCall, Treasurer.

The Callaway County Medical Society met in regular monthly session August 11th, at the Hospital for the

Insane, Fulton. Officers for the ensuing year were elected as follows: Dr. D. H. Young, President; Drs. N. F. Baker and W. M. Bayliss, Vice-Presidents; Dr. J. F. Harrison, Secretary, and Dr. G. D. McCall, Treasurer.

Dr. Baker read an interesting paper on "Needed Legislation in Reference to Patent Nostrums." The essayist spoke of the evil of the promiscuous sale and use of nostrums containing so large a percentage of alcohol as most of them by analysis have been found to contain. He advocated the enactment of stringent laws compelling the official analysis and publication of formulæ, official inspection and regulation of the sale of all patent medicines, so-called cures and discoveries, proposed for medical use. The paper was generally discussed by members present and its sentiment endorsed. Upon motion the society adjourned until the September meeting. MARTIN YATES, Reporter.

CLAY COUNTY MEDICAL SOCIETY.

Dr. L. J. Jones, President.
Dr. John J. Rice, Vice-President.
Dr. F. H. Matthews, Secretary.
Dr. J. H. Rothwell, Treasurer.
Dr. H. Rowell, Delegate.

The regular August meeting of the Clay County Medical Society was held in Judge Emerson's Court room at Liberty, Monday, August 29th, Dr. L. J. Jones in the chair. Dr. R. E.

Sevier read a very instructive paper on "The Various Manifestations of La Grippe." Dr. J. T. Marsh opened a general discussion on the subject of typhoid fever. Dr. H. E. Pearce's remarks on surgical sequelæ were especially interesting and instructive.

F. H. MATTHEWS, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. A. S. Herndon, President.
Dr. R. P. Davis, Vice-President.
Dr. G. C. Coffey, Secretary,
Dr. J. A. Baldwin, Treasurer.
Dr. S. Redmond, Delegate.

The regular monthly meeting of the Platte County Medical Society was held at Weston, Wednesday, September 7th, Vice-President R. P. Davis presiding. The minutes of the previous meeting were read and approved. Dr. Herndon being absent, his paper, "Why We Should Maintain a Medical Society," was read by the secretary. The doctor maintains that each honorable physician in the county, for the good of his patients, his profession and himself, should be a member of his county society, rid himself of all feeling of petty jealousy, selfishness and bigotry, keep abreast of the times and gain sufficient social and political influence to enable the society, the state association and national association to bring about needed reforms and to rid the country of patent nostrums, pretenders and quacks. Dr. S. Redman, in a paper entitled "Home Treatment *versus* Climate in Tuberculosis," stated that the only advantage climate can have is in enabling the patient to sleep out in the pure air and that can be arranged for at home. Fresh air, nutri-

tion and the destruction of the infected sputum are the keynotes to treatment. Dr. E. W. Murray presented a very instructive discourse on "The Use and Abuse of Spectacles." Dr. Dinwiddie, of Camden Point, was elected a member of the society.

GRUNDY C. COFFEY, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.
Dr. Harry Tatum, Vice President.
Dr. C. A. Jennings, Secretary-Treasurer.
Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society met in the office of Dr. J. F. Welch, Salisbury, Thursday, August 25th, Dr. M. B. Austin in the chair. Dr. J. D. McAdam, of Prairie Hill, read a paper on "Uniform Medical Fees." The paper was favorably received, but the prevailing opinion was that the time is not yet reached for the adoption of a uniform scale of medical fees. At the next regular meeting papers will be read by Dr. C. H. Temple on "Proprietary Medicines," and Dr. H. E. Kirkpatrick on "Inflammatory Rheumatism in Children."

C. A. JENNINGS, Reporter.

CASS COUNTY MEDICAL SOCIETY.

Dr. T. W. Adair, President.
Dr. R. D. Ramey, Vice-President.
Dr. J. S. Triplett, Secretary-Treasurer.
Dr. M. P. Overholser, Delegate.

The Cass County Medical Society met in regular session in Harrisonville, September 1st, Vice-President R. D. Ramey presiding. The minutes of the previous meeting were read and approved. Drs. F. W. Foster, of

East Lynne; M. H. Rhodes, of Austin, and J. B. Brierly, of Gumm City, were elected to membership.

Dr. W. F. Chaffin, of Raymore, read a timely and instructive paper on "Cholera Infantum," in which he considered at some length the etiology, pathology, symptoms, prognosis and treatment. Decomposition of albumens in the alimentary canal not alone gives the characteristic odor to the stools, but furnishes an excellent culture medium for the Shiga dysentery bacillus, or whatever other bacteria may be the immediate cause of the trouble. Error in diet, lack of hygienic surroundings, careless handling of food stuffs, especially milk, together with the relaxation and lowered vitality incident to the heat of the day and the chilling of the body while uncovered during sleep, are predisposing factors of great importance. There is present, congestion not only of the stomach and intestines with decided catarrh, but of the sympathetic nervous system, causing marked alteration of pulse, temperature and respiration. The kidneys are usually congested, the brain anemic, and broncho-pneumonia is a frequent complication. The condition is characterized by stomach and bowels in constant rebellion, stools of musty odor, unquenched thirst, restlessness or stupor, cold hands and feet, clammy, shrivelled skin and thready, rapid pulse. The prognosis is unfavorable. The treatment consists in cold applications to the head, immersion in hot water (about 110°) to relieve the internal congestion, shaved ice internally until the stomach will tolerate fractional doses of aconite, which is given in

brandy hourly until the temperature is below the danger point. Pure sulphocarbolate of lime soda and zinc of each, one-half to one grain every two to four hours, until the stools are odorless. Enemata of warm physiological saline solution with borate of soda replenishes the depleted tissues in a wonderful manner. Intestinal antisepsis is imperative in the later treatment or relapse is sure. No nourishment should be given until the temperature subsides and the vomiting and purging have ceased. An hypodermoclysis, a pint every hour, may be necessary as a last resort in the more desperate cases.

Dr. R. P. Walker read a paper entitled "What Should We Prescribe," in which he forcibly condemned the custom of indiscriminately prescribing proprietary medicines, not alone because in most cases we do not know for certain the formulæ, and hence cannot count on the therapeutic results we wish, but because they are expensive to the patient, and then, too, they lessen the esteem in which the physician is held by the patient, who thinks he is being given "patent medicine." The physician should familiarize himself with electro-therapeutics, x-ray work, hydrotherapy, massage, etc., not only because of their value when rightly applied, but that there may be no excuse for the existence of such fakirs, empirics and charlatans as thrive by the abuse of these branches of therapeutics. The paper was well received and resulted in one of the most enthusiastic general discussions in the history of the society. Drs. W. P. Chaffin, of Raymore; G. W. Farrow, of East Lynn; M. P. Overholser, of Harrisonville;

I. Smith, of Austin, and R. D. Ramey, of Garden City, manifested especial interest in the discussion.

A quiz on the "Anatomy of the Lungs, Mensuration, Types of Respiration, Vocal Fremitus and Dyspnoea" was conducted by Dr. J. S. Triplett, of Harrisonville. That the subject had been thoroughly reviewed was shown by the readiness with which the questions were answered. The quiz will be continued at future meetings. The society adjourned to meet at Harrisonville, Thursday, December 1st.

J. S. TRIPLETT, Reporter.

HOWELL COUNTY MEDICAL SOCIETY.

- Dr. J. C. B. Dixon, President.
- Dr. J. W. Bingham, Vice-President.
- Dr. H. C. Shuttee, Secretary.
- Dr. H. A. Thompson, Treasurer.
- Dr. H. C. Shuttee, Delegate.

The Howell County Medical Society held its regular bi-monthly meeting at K. P. hall, West Plains, September 1st, Dr. J. C. B. Dixon in the chair. Dr. J. C. B. Davis, of Mountain View, read a paper on "Mercury and Iodide of Potassium." He gave the various therapeutic indications for the remedies and deplored the tendency of the day to discard old, well proven remedies for the new and untried. The paper was generally discussed and approved. Dr. A. H. Thornburgh read a paper entitled "Pain," giving the various kinds of pain, location and significance.

At our July meeting the business side of the practice of medicine was discussed. Dr. H. J. Rowe, of Wilcox Springs, read a paper on "The Duty of Physicians to Each Other."

and Dr. D. J. Nichols one entitled "The Physician as a Financier." There was a general consensus of opinion that doctors pay too little attention to collections and do too much charity work.

H. C. SHUTTEE, Reporter.

CALLAWAY COUNTY MEDICAL SOCIETY.

- Dr. C. H. Christian, President.
- Dr. D. H. Young, Vice-President.
- Dr. M. Yates, Secretary.
- Dr. G. D. McCall, Treasurer.
- Dr. C. H. Christian, Delegate.

The Callaway County Medical Society held its regular meeting at Fulton, September 8th, Dr. C. H. Christian presiding. Drs. J. W. Berry, of Reform, H. I. Owen, of Fulton and E. E. Brummer, of Fulton, were elected members of the society. Dr. Brummer, Pathologist to the State Hospital for the Insane, read an interesting paper on "Post Mortem Examinations." Dr. Yates read a paper on the "Treatment of Tuberculosis." A general discussion followed. The society adjourned to meet in October. The outlook for the future of the society is very encouraging indeed, there being at present nineteen enthusiastic members.

M. YATES, Reporter.

BOONE COUNTY MEDICAL SOCIETY.

- Dr. R. S. Austin, President.
- Dr. Guy L. Noyes, Vice-President.
- Dr. J. M. Fisher, Secretary-Treasurer.
- Dr. J. E. Thornton, Delegate.

The Boone County Medical Society met in regular session at Sturgeon, September 12th, Dr. A. W. McAles-ter acting as chairman in the absence

of both the president and vice-president. Some of the most interesting clinical cases ever brought before the society were presented, after which Dr. E. N. Gentry read a paper "Symptoms and Treatment of Pneumonia."

Dr. Woodson Moss opened the discussion of the paper. Papers on tuberculosis were read by Drs. Woodson Moss, W. McNab Miller and A. W. McAlester. Drs. J. F. Keith, W. A. Robinson, W. D. Carr and A. J. Campbell were elected to membership. The society adjourned to attend a reception and banquet tendered them by the physicians of Sturgeon.

J. M. FISHER, Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. J. S. Howell, President.
Dr. Richard Schmidt, Vice-President.
Dr. F. Janet Reid, Secretary-Treasurer.
Dr. Thomas Chowning, Delegate.

Marion County Medical Society met in regular monthly session Friday, August 5th, Dr. J. S. Howell, presiding.

Dr. F. W. Bush presented a paper on "Puerperal Eclampsia." The doctor related a case in point in which to control the convulsions he gave gr. $\frac{1}{2}$ of morphine hypodermically, while he promptly delivered the child. Both mother and child did well, and the mother, who has since borne several children, has never had a recurrence of the convulsions.

Dr. J. N. Baskett reported a case of eclampsia gravidarum which failed to respond to the usual treatment, the case ending fatally.

Dr. Thomas Chowning reported a

case in which a provisional diagnosis of appendicitis had been made, the only apparent negating symptom being an active diarrhoea. The patient, a twelve-year-old boy, had eaten very heartily of green apples.

Dr. J. N. Coons, retired, was elected to honorary membership in the society. Dr. Glahn, recently located in Hannibal, was requested to get a transfer from the St. Louis Medical Society. The society adjourned to meet again in September.

H. L. BANKS, Reporter.

BUTLER COUNTY MEDICAL SOCIETY.

Dr. W. E. Highfill, President.
Dr. A. W. Davidson, Vice-President.
Dr. J. J. Norwine, Secretary.
Dr. C. Jones, Treasurer.
Dr. Chas. F. Greene, Delegate.

The Butler County Medical Society met in regular session in the city council chambers, Poplar Bluff, August 26th, President W. E. Highfill, presiding. The attendance was most gratifying, there being but one member absent. Drs. J. A. Atkisson, of Morehouse, and Victor Caldwell, of Poplar Bluff, were elected members.

Dr. J. J. Norwine reported a case of congestive chill, male, twenty-eight years, previous health good, family history good. Patient came to Poplar Bluff from Mexico, Mo., six months ago. Within two and one-half hours of the attack he was profoundly comatose, eyes markedly divergent, extremities and surface cold and bathed in perspiration, pulse small, easily obliterated by pressure and irregular; temperature 97°. He was given strychnine sulphate gr. 1-30 every hour for four hours, inunctions of

quinine, and the whole trunk was encased in a mustard plaster. In two hours the temperature was 98°, when fifteen grains of calomel were given, followed by a saline. Recovery without another chill under elixir of iron, quinine and strychnine was rapid. This is the third case so treated by the doctor with happy results.

The president appointed as censors, Drs. A. Windsor, Dewitt Eskew and W. A. Davidson; as committee on public health and legislation, Drs. J. J. Norwine, B. C. Jones and C. W. Williamson. Much interest is manifest in the society in the matter of professional ethics and the elevation of the standard of medicine.

My friend and assistant councillor, Dr. Ira A. Marshall, of Ironton, organized Wayne county last week and before the next meeting of the State Association Southeast Missouri will be in line.

J. J. NORWINE, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. Paul C. Smith, President.
Dr. T. J. Payne, Vice-President.
Dr. C. W. Watts, Secretary-Treasurer.
Dr. V. Q. Bonham, Delegate.

The Howard County Medical Society met in regular session at the office of Dr. W. S. Thompson, of Armstrong, Dr. Paul C. Smith presiding. Cases were reported as follows: By Dr. J. Y. Hume, a case of septicemia, resulting from infection of a lacerated hand; by Dr. C. W. Watts, a case of tubercular infection of the leg; by Dr. W. S. Thompson, a case of senile gangrene of the toes; by Dr. J. Y. Hume, a case of fracture of the skull. In all of these reports

the treatment was carefully outlined. The society was royally entertained by the citizens of Armstrong.

C. W. WATTS, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. W. T. Elam, President.
Dr. J. B. Reynolds, Vice-President.
Dr. Chas. Wood Fassett, Secretary.
Dr. J. J. Bansbach, Treasurer.
Dr. O. B. Campbell, Delegate.

The Buchanan County Medical Society held its first regular meeting after the summer recess on September 2d, with an average attendance. After reading and approving the minutes of the preceding meeting, several applications for membership were acted upon favorably. A resolution was adopted limiting the membership strictly to physicians of Buchanan county. This was done with the idea of encouraging organization in one or two of the neighboring counties which, at present, are without county societies. Dr. W. B. Deffenbaugh was the choice of the society for second vice-president.

An interesting clinical case was presented by Dr. Elam. The patient was a boy who was operated upon for an appendix abscess. The cæcum was found perforated. The perforation was closed and drainage instituted. A second operation was done three weeks later for fecal fistula and two new perforations were found—one in the distal two inches of the ileum, the other in the colon near the ileo-cæcal valve. An end-to-end anastomosis was accomplished with a Murphy button. Recovery. Unusual cases were reported by Drs. Porter and Doyle.

Dr. J. M. Bell read the paper of the evening, entitled "Gastroptosis." The subject was well handled from the point of view of practical medicine and received a generous round of discussion. The subject for general discussion—"The Office Treatment of Hemorrhoids"—was presented by Dr. McGill, who has recently had the opportunity of observing the work of Dr. Gant.

From the present outlook it would seem that the membership of the society will be increased considerably this year, as much more interest is manifested than formerly.

L. A. TODD, Reporter.

McDOWELL DISTRICT MEDICAL SOCIETY.

Dr. John D. Seba, President.

Dr. C. A. Wood, Secretary.

The McDowell District Medical Society met at Owensville, June 25, 1904, in the office of Dr. J. W. Nieweg, with the president, Dr. J. D. Seba, in the chair. After the reading of the minutes of the previous meeting, Drs. F. Auf der Heide and H. G. Isenberge were elected to membership in the society. A paper was read by Dr. J. W. Nieweg, entitled "The Tongue as a Diagnostic Guide." After a free discussion of the essay by all present, various other scientific subjects were discussed.

The next regular meeting will be held at Bland, Mo., October 27, 1904,

when the following programme will be rendered: "Diphtheria," Dr. F. Auf der Heide; "The Proper Use of Forceps in Obstetrical Practice," Dr. J. D. Seba; "Tuberculosis," Dr. J. W. Nieweg; "Pneumonia," Dr. J. J. Ferrell; "Presentations and Versions," Dr. C. A. Wood. Special efforts are being made to make the next meeting one of the best in the history of the society.

J. W. NIEWEG, Reporter.

AUDRAIN COUNTY MEDICAL SOCIETY.

Audrain County Medical Society met in Dr. Cave's office, September 5th, and was called to order by Vice-President M. E. Crawford. Minutes of the previous meeting were read and approved. As the society has not met regularly through the summer months, no set programme was rendered, but a general discussion was indulged in on various subjects. The applications for membership of Drs. E. A. Hicks and Paul E. Coil, of Mexico, and Herbert Lanier, of Martinsburg, were received and referred to the board of censors. Dr. R. A. Berrey was elected president to fill the vacancy caused by the death of Dr. C. T. Varnon. Dr. E. S. Cave was appointed to read a paper at the next regular meeting. On motion the society adjourned to meet October 3d.

C. A. ROTHWELL.

NEWS ITEMS.

It is announced that the New York University has added a fifth year to the course of instruction in the medical department. The arrangement is to go into effect at the session of 1905-1906. For the present the fifth year of instruction is to be elective, but it is intimated that it may soon be made obligatory.

The organized profession in Germany has issued a circular warning youth against the medical career. It points out the overcrowding of the profession in comparison to the population, and depicts the material depression prevailing in its ranks from the lack of restrictive legislation against quacks and of regulation of the sickness insurance societies.

The candidates for the two vacant places of corresponding members in the medical section of the French National Academy of Medicine were Ronald Ross of Liverpool, our own Weir Mitchell, Mosso of Turin, Ehlers of Copenhagen, Unna of Hamburg and Pick of Prague. Ross and Mitchell were elected by large majorities at the meeting on July 19.

Dr. George F. Shrady, after nearly forty years of continuous service, has resigned the editorship of the *Medical Record*, Dr. Thomas L. Stedman, who has been associate editor for nearly twenty years, being appointed in his place. The personnel of the editorial staff, it is said, remains as before Dr. Shrady's resignation.

Frank Konig, of Berlin, has just witnessed the completion of the model surgical clinic erected for him at the Charite, and now he retires, as he has passed the age of seventy-two. His successor is already announced, A. von Eiselsberg, of Vienna, Billroth's favorite pupil. He has already been connected with a German university, having been professor of surgery at Konigsberg, 1895 to 1901, after having served a term at Utrecht.

It is announced that Dr. William Osler, of Baltimore, has been appointed regius professor of medicine in the University of Oxford, and we congratulate the ancient university on the acquisition of so keen a clinician and so genial a man. We are not sure that his new field will afford greater scope for his remarkable abilities than he has found in Montreal, Philadelphia and Baltimore, but we feel certain that Oxford will be the gainer by his accession to its medical faculty.

San Francisco is to have a great library of medicine and surgery, one that will be surpassed in this country only by the collection of medical and surgical works of the offices of the surgeon general of the United States in Washington. The library is to be built under the bequest made by Pauline C. Lane, who was the wife of the late Dr. L. C. Lane. It is to be known as the Levi Cooper Lane Library of Medicine and Surgery, as a memorial to the eminent surgeon.

The health commissioner of St. Louis is taking active steps to compel property owners of the city to cut the weeds on their lots. Failure to do this has resulted in about one hundred and fifty property owners being summoned to appear before various police courts. The cases will be prosecuted for the city. Under a law upheld by the supreme court last winter, permitting weeds to grow on vacant lots is punishable by a fine of from ten dollars to fifty dollars.

At the conference arranged by the Chicago Woman's Club on Women in Industrialism, Dr. Lucy Waite, of Chicago, reported 4,376 women listed in the medical societies. New York had the largest number. Illinois came next with 239; of these, 51 were giving instruction in medical colleges in Chicago. An investigation as to the fees of 76 women physicians, graduates from a certain college, disclosed that 10 received annual incomes from \$3,000 to \$4,000; 5 received from \$4,000 to \$5,000; 3 from \$5,000 to \$10,000, and 15 from \$15,000 to \$20,000.

Cheinnisse is not prepared to admit that the mosquito is the sole cause of malarial and yellow fever. He thinks the thickness of the skin of indigenous races does not sufficiently explain their immunity, since they are subject to filariasis. He states that the geographical distribution of anopheles is not exactly that of malaria. Epidemics of malaria have occurred in Algiers without the presence of mosquitoes. The writer is inclined to believe those who consider the

fever caused by mosquito bites to be a mere inflammatory bilious fever and not the true yellow fever. He attributes the disappearance of yellow fever from Cuba to quarantine solely, and believes that soiled linen may communicate the disease.

The Austrian emperor, Francis Joseph, has just laid in Vienna the foundation stone of a new hospital, which is likely to be one of the most perfect institutions of its kind in the world. It will replace the famous Allgemeine Krankenhaus, in the Alserstrasse, and will be the largest hospital in Europe. It will consist of forty pavilions, as they are to be called, of which, however, the eighteen clinical institutes will be so many separate large hospitals, with the best possible arrangements for teaching purposes, demonstrations, etc. There will be room in each operating amphitheater for two hundred and fifty students. In the clinical institutes for infectious diseases the patient will be separated from both professor and students by a glass screen. Every clinical institute will have a large ambulatorium, and in each there will be flat roofs, where patients may lie in the open air whenever weather and temperature allow it. The whole area of the new hospital is nearly sixty acres, this being more than twice the area of the present Krankenhaus, but there will be fewer beds. About four-fifths of the total area, or forty-eight acres, will be turned into gardens. It will take ten years to finish the institution, which will cost about \$10,000,000.

The fourth Pan-American Medical Congress, which was to have convened the latter part of December of this year at Panama, has been postponed until the first week in January. This was done at the request of many physicians who wished to attend the congress, since they desired to be at home during the Christmas holidays. The delegates from this side of the continent will leave on Tuesday, December 27, if they go from New York by the regular Pacific Mail lines, or at other dates if they go by way of New Orleans or Jamaica. The dates of sailing from the Pacific coast have not yet been ascertained. The congress will be held from the 4th to the 7th of January. The officers of the congress, appointed by President Amador, of the Republic of Panama, are: Dr. Julio Icaza, Dr. Giro Uriola, Dr. J. Calve, Dr. Carlos Cooks, Panamanians; Dr. Gorgas, chief of the Panama Canal Sanitary Commission; Drs. Carter and Ross, Americans; Dr. Manuel Corales, Cuban; Dr. M. Stern, English, and Dr. Oduber, Dutch. This congress bids fair to be the most successful Pan-American Medical Congress that has ever been held, on account of the central situation of Panama and its easy approach from both sides of North America, Mexico and the Central American republics, as well as from the countries on the north and west sides of South America. There will be but four sections at this congress, surgery, medicine, hygiene and the specialties.

"At the annual meeting of the National Temperance Society, held at

Ocean Grove, New Jersey, in June, resolutions were adopted calling upon the board of managers of the society to memorialize congress not to issue any patent or proprietary rights to any one for any remedy, medicine, 'cure' or other compound containing alcohol, opium or other narcotic drug, and to make it obligatory that all proprietary or patent medicines shall be put up in bottle or package with a label, on which are printed the ingredients of the preparation."—*Medical Record*, July 30, 1904.

Jenner, an obscure English physician, introduced vaccination into his country January 21, 1799. When its merits were known, Jenner became famous. He wrote "Observations on the Natural History of the Cuckoo," also two works on the "Cow Pox." Within this tomb hath found a resting place

The great physician of the human race.

Immortal Jenner! whose gigantic mind

Brought life and health to more than half mankind.

Let rescued infancy his worth proclaim,

And lisp out blessings on his honored name;

And radiant Beauty drop her saddest tear,

For Beauty's truest, trustiest friend lies here.

—Epitaph placed upon Jenner's tomb.

George Newton Lantz, M. D., University of Louisville, 1900, died at his home in Brookfield, Missouri, September 2, of Bright's disease. Dr. Lantz was President of the Linn

County Medical Society, member of the North Missouri Medical Society, member of the Grand River Medical

Society, member of the Missouri State Medical Association, and member of the American Medical Association.

ABSTRACTS.

Elastic Ligature in Intestinal Fistulæ.—Dr. Theodore A. McGraw (*The Journal of the Michigan State Medical Society*) discusses at some length the treatment of intestinal fistulæ by the elastic ligature. He says that although many cases of fistulæ will close spontaneously or with comparatively slight operations, yet cases are frequently met with where repair of the injured bowel can be accomplished only by methods which are the most difficult and dangerous of all surgery.

A clear understanding of the pathological conditions with which they are associated is necessary to meet these cases successfully. The most common causes which give rise to destructive ulceration or gangrenous inflammations of the bowel are obstructions (from constrictions, volvulus, and other causes), suppurative appendicitis, tuberculous deposits, typhoid ulceration, and injuries to the abdomen. The resultant pathological conditions of severe inflammation that accompany all septic insults to the peritoneal cavity are similar and, excepting tubercular cases, nearly identical.

When the cases are operated on early and the patients recover from the condition of imminent danger, there remains the formidable false anus, while within the abdomen the inflammation either disappears or assumes a chronic character. In either case extensive adhesions occur, the

bowels becoming matted together and extremely friable, while the peritoneum becomes covered with a mass of granulations. As the granulations disappear the adhesions become so firm, the bowel walls so blended together, that separation is impossible. The friability of the gut wall persists and commonly there occur more points of obstruction. Success in relieving these conditions must come, if at all, by a careful study of the obstacles which we have to contend with in each individual case. If gangrene has occurred the patient is nearly moribund from pain, shock, and septic absorption, and measures adopted must be such as take the least time and make the least demand on the patient's strength. An end to end anastomosis is exceedingly hazardous, while fastening the bowel in the wound and permitting it to discharge through a false anus, means still another dangerous operation for the relief of the injured bowel.

Some three years ago Dr. McGraw proposed to obviate the necessity of a second operation by a simple method of procedure to be carried out at once before the bowel was fastened in the wound. It was simply to draw the bowel out of the wound until a portion was reached that was nearly normal in appearance, and then to make a lateral anastomosis between the two limbs with an elastic ligature. The idea was to provide a passage for the

contents of the bowel and thus enable the false anus, no longer needed for the evacuation of the faeces, to heal. After the ligature had been applied the bowel was to be disinfectd and all that seemed in condition to recover pushed back into the peritoneal cavity. That part which was mortified with that which appeared dangerously near mortification was to be fastened outside the abdomen by stitching it to the abdominal wall. The immediate result of such a procedure, if the patient recovered, would be the relief of the distended bowel by means of the false anus and the gradual subsidence of the internal congestion. When that had taken place and the ligature had cut through, it was hoped that the fistula would spontaneously heal, or should that fail to occur could be made to heal by inverting the ends of the protruding bowel, a simple operation of little danger.

Dr. McGraw reports two cases, both successful, in opening the passage between the afferent and efferent bowel, and in obviating the passage of faeces through the false anus.

Decapsulation of the Kidneys for the Cure of Chronic Bright's Disease—Medical Aspect of.—Chronic Bright's disease in its development constitutes a diseased condition of the entire system. It is a disease of very gradual development, and in the great majority of cases has existed for months and years before the patient comes under observation. It is produced by a chronic toxæmia, either systemic or infective in origin, which produces coincidentally, as a result, widespread arterial and cardiac degenerative

changes, which, being once established are permanent, and which in their development eventually constitute the most threatening element of the disease.

General edema or anasarca in chronic renal disease is in many instances in great measure a cardiac dropsy, brought about by advancing myocardial degeneration. It is occasionally so in chronic parenchymatous nephritis, and almost invariably so in chronic interstitial nephritis. It may be stated that, in like manner, developing anuria and uremia in chronic nephritis may be largely cardiac in production, the functional inadequacy of the kidneys having its inception in the fall of blood-pressure incident to circulatory failure. In the latter stages of chronic nephritis, of whatever character, the case is apt to take on these cardiac aspects, which virtually convert the therapeutic problem into a question of sustaining a failing heart.

Albuminuric retinitis must be looked upon as one of the terminal symptoms of chronic nephritis. The concordance of opinion places a limit of two years upon the prognosis after development of this complication. The statistics gathered by Suker of cases operated on show that in place of prolonging this limit of expectancy, operation has a decidedly contrary effect. It is to be borne in mind that chronic nephritis is a disease of slow and spasmodic development. It is well to realize its exacerbations and remissions, so as to avoid the error of mistaking remissions for cures. The mere fact that the general condition of the patient improves somewhat after decapsulation does not establish

the validity of the operation, for hygiene and rest will do the same for the patient to a remarkable degree in many cases. As the factors of hygiene and rest are invariably associated with the surgical procedure, it is possible that the resulting benefit may, to some extent, accrue from those sources.

The results of experimentation demonstrate that, within a period of three months and a half after decapsulation a new, and in most cases a tougher, fibrous envelope has taken the place of the original capsule. This fact may account for the many relapses and deaths after that period in cases operated on, and in chronic cases, at least, it narrows the prospect of improvement to a period of months.—*Monthly Cyclopædia*, July, 1904.

The Bacillus of Leprosy, and Leprolin.—In a letter from its Rangoon correspondent, the *London Times* gives in some detail the account of the discovery of the bacillus of leprosy by Captain Rost, of the Indian Medical Service. We take this to mean the successful cultivation of the organism. Of greater interest is the claim that Captain Rost has succeeded in producing a curative serum known as "leprolin," that possesses remarkable healing properties. It appears to act equally well upon all varieties of the disease. Sensation is restored to anesthetic areas, the color becomes normal, ulcers and nodules disappear. Four cases are reported cured. One patient, a Burman, who had anesthetic leprosy of the legs, with ulceration of the feet, for five years, appeared completely cured in ten days. In India the treatment is be-

ing tried in some thirty localities, and in Burmah more than one hundred cases are receiving serum, which is injected usually at intervals of a fortnight. Sale is administered internally as an adjunct. This report lacks scientific confirmation, and until such is received we must regard it as a newspaper statement that at least appears overdrawn. It is said the four patients who had been cured were exhibited at the local branch of the British Medical Association.—*American Medicine*.

Olive Oil in Diseases of the Stomach and Duodenum.—P. Cohnheim has employed large doses of olive oil in more than thirty cases of pyloric stenosis, gastric ulcer, pyloric fissures and their sequels, and reports concerning these cases in detail. His method of procedure is as follows: Into the empty stomach, which, if necessary, has been washed out, he injects by means of the stomach tube 100 cc. to 150 cc. of warm olive oil; the patient then lies on his right side for about a half hour and fasts for another half hour; if the pains recur during the day 50 cc. more are given toward evening. As the patient improves he takes a wineglassful an hour before breakfast and from one to two tablespoonfuls an hour before dinner and supper. In some cases Cohnheim gives milk of almonds instead of olive oil. He summarizes his results as follows: Gastrectasia, the result of pyloric fissure or ulcer, is cured by large doses of olive oil in a short time. Gastrectasia, due to organic pyloric stenosis, gives no symptoms so long as the patient lives carefully and uses large doses of oil:

the oil acts as a mechanical lubricant. Relative stenosis associated with pylorospasm and hypersecretion for hours after meals are helped quickly. The spasm of carcinomatous stenosis is improved by oil very much. The painful spasms of pyloric ulcer disappear very soon as long as no complications exist; the oil checks the spasms, lubricates the surfaces, increases nutrition and prevents pain. It is not associated with unpleasant side effects. It serves to differentiate nervous from organic strictures, as the former are not improved by it. It prevents secondary gastrectasia in many cases and protects against relapses. It should always be tried before resorting to operation.—*American Medicine*.

A French Impression of American Hospitals.—It is always interesting and generally profitable to read what foreign visitors have to say about us. The captiousness so often displayed by them in bygone years has now largely disappeared, and their criticisms are as a rule wholesome. Few recent visitors have manifested truer impressions or shown more justice in comment than Dr. J. L. Faure, whose article appears in the *Presse Medicale* for July 27. His visit was not wholly confined to the United States, for he enthusiastically praises a new hospital, not quite completed, that he saw in the City of Mexico.

He declares that the most beautiful operating theater that he has ever seen is that of the new Mount Sinai Hospital in New York, but he implies that some needless expense is shown in it. He thinks that our operating tables, as a rule, are not so good as

those used in France, for they do not admit of such convenient change of the patient's posture, especially in pelvic surgery. He condemns our instruments as too heavy and clumsy, declaring that it takes real artists and not machine workers to fashion delicate instruments. He admires the plan of private rooms for pay patients, also the special hospitals for persons with acute infectious diseases.

He is fully appreciative of the excellence of American nurses. They are generally, he says, drawn from a superior class of the population, and their education, both preliminary and professional, is more advanced than in his own country; but he thinks that too many of them are immediately employed in an operation, and, in general, too many assistants, thus increasing the risks of septic infection. While he finds that our surgeons and nurses asepticize their own persons faultlessly, he doubts if the patient is as thoroughly aseptized as in France. As regards the professional personnel, he approves of the method of appointing the members of the house staff, but he fears that political considerations and lay meddling have too much to do with the choice of the higher medical officers. He has even imbibed the idea that in some hospitals the surgeons are subject to change at every presidential election, which, of course, is quite erroneous.

He finds no more difference between the actual surgery of America and that of the chief European countries than exists between the work of one surgeon and that of another in any one country. He seems to approve

of the celerity with which operative intervention is brought to bear in cases of serious injury, as was exemplified in the treatment of President McKinley, and he appears to have a high opinion of the best of our operative work. In particular he pays a glowing tribute—amply deserved, we may add—to the wonderful work of the Mayo brothers, of Rochester, Minnesota. In conclusion, he expresses the liveliest appreciation of the courtesy shown him by the American surgeons.—*New York Medical Journal*.

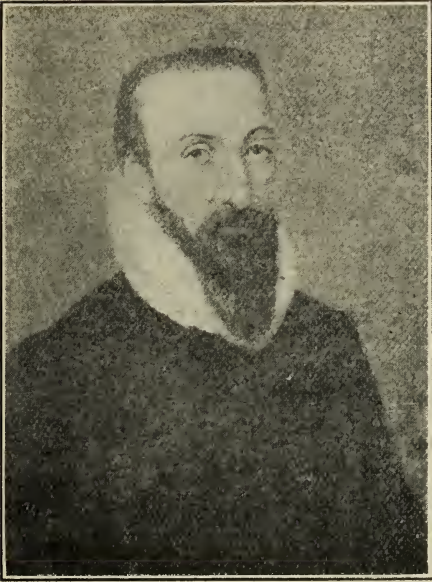
William Osler, Professor of Medicine, Oxford University.—It has been but a couple of weeks that we have had to announce the loss to the American profession by retirement of Dr. George Shradley, editor of the *Medical Record*, and a leader of medical thought for almost forty years. Now we have to record the retirement of another leader, probably the foremost authority in clinical medicine in America, Dr. William Osler, professor of medicine to Johns Hopkins University. Dr. Osler has just accepted the appointment to the chair of medicine at Oxford University, and will be known as regius professor of medicine to that institution, succeeding his former teacher, Sir John Burdon Sanderson.

Dr. Osler was born in Tecumseh, Ontario, in 1849, and graduated from McGill University in 1872. His post-graduate education was obtained at Berlin, Vienna and London. Returning to Canada, he was appointed in 1874 to the chair of the institutions of medicine at McGill, which position he held for ten years, resigning

to accept the chair of clinical medicine in the University of Pennsylvania in 1884. In 1875 he was elected to the position of pathologist to the Montreal General Hospital, and in 1878 physician and lecturer on clinical medicine in the summer school. He remained at the University of Pennsylvania from 1884 to 1889, when he was appointed to the chair of medicine of the Johns Hopkins University, which position he has since held. In 1885 he was Gladstonian lecturer at the Royal College of Physicians and Surgeons, London; in 1886 Cartwright lecturer to the College of Physicians and Surgeons, New York. He is a fellow of the Royal College of Physicians, London; LL. D., Aberdeen and several American universities.

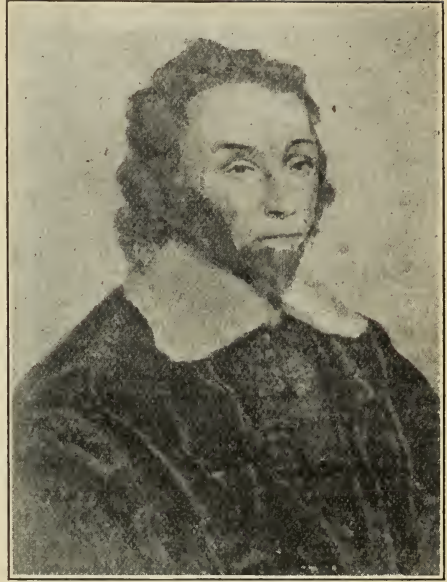
Probably Dr. Osler will be most gratefully remembered by the medical student and younger practitioner for his magnificent text book on the practice of medicine, the first edition of which appeared in 1892, and on which his principal fame rests. No text book before or since has been able to convey to the beginner the difficult portion of our art in such a clear and simple manner, and to this day the writer, in every knotty problem that presents itself, has first and often final recourse to "Osler." He is at last reaping the reward of his strenuous labors of the past, and what is America's loss is his and England's gain. In offering congratulations to the new regius professor, we can only wish him the success in the future that he has attained in the past. To Sir William Osler, Bart.—*The Cincinnati Lancet Clinic*.

BIOGRAPHICAL SKETCHES.



AMBROISE PARE.

Ambroise Pare, the father of French surgery, was born of poor parents at Laval, province of Maine, in 1510. He began his medical career as apprentice to a barber-surgeon in Paris; studied three years at the Hotel Dieu, and so far obtained the confidence of his teachers that he was sometimes permitted to operate for them. In 1537 Pare was made surgeon to the colonel-general of infantry. After a campaign of three years he returned to Paris and married. In 1543 he was in the army of Perpignan. At the siege of Damvilliers he, for the first time in surgery, made use of ligatures in amputations, doing away with the cautery. In 1554 Pare was made Master of the College of St. Come. From 1559 to the time of his death, in 1590, he was surgeon to the King, serving under Henry II, Francis II, Charles IX and Henry III.



WILLIAM HARVEY.

William Harvey, who first made known the doctrine of the circulation of the blood, was born in Folkstone, Kent, in 1578, and died in London, in 1637. He graduated from the grammar school at Canterbury, and became a pensioner at Caius College, Cambridge, where he took his A. B. degree at nineteen. He then began the study of medicine at Padua, becoming a doctor of medicine in April, 1602, at the age of twenty-four. In the same year he was made a member of the Royal College of Physicians. In 1609 he was elected physician to St. Bartholomew's Hospital; in 1615 he was appointed Lumleian lecturer, and in 1616 he began a course of lectures, the first bringing forward his views on the movements of the heart and blood. Two years later he became Physician Extraordinary to James I, and later Physician in Ordinary to his successor.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

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Atchison	E. E. Richards...	Tarkio	A. McMichael....	Rockport.
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Cass	H. Jerard.....	Pleasant Hill...	J. S. Triplett...	Harrisonville.
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Clay	L. J. Jones.....	Linden	F. H. Matthews..	Liberty.
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Current River...	J. A. Chilton....	VanBuren	Frank Hyde....	Eminence.
Davess	W. N. Keener....	Jamesport	M. A. Smith.....	Gallatin.
Grundy	J. A. Asher.....	Trenton	W. D. Fulkerson.	Trenton.
Henry	J. M. Miller....	Montrose	F. M. Douglas...	Clinton.
Holt	J. M. Davis....	Craig	W. C. Proud....	Oregon.
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Howell	J. C. B. Dixon...	West Plains....	H. C. Shuttee...	West Plains.
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Jackson	J. W. Kyger.....	Kansas City....	E. L. Chambliss..	Kansas City.
Jasper	R. L. Neff.....	Joplin	J. D. Pifer.....	Joplin.
Johnson	J. I. Anderson...	Warrensburg ..	E. H. Gilbert....	Warrensburg.
John T. Hogden..	M. P. Overholser.	Harrisonville ..	H. H. Rhodes....	Foster.
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Livingston	R. Barney.....	Chillicothe	H. M. Grace....	Chillicothe.
McDonald	E. F. Doty.....	Anderson	M. L. Sellers....	Anderson.
McDowell Dist..	John D. Seba....	Bland	J. W. Nieweg....	Owensville.
Macon	W. E. Webb.....	Macon	G. B. Rush.....	Macon.
Maries	O. C. Fritts....	Lois	O. N. Schudde...	Vienna.
Marion	J. S. Howell....	Hannibal	F. Janet Reid...	Hannibal.
Miller	J. W. Temple....	Eldon	G. D. Walker....	Eldon.
Mississippi	A. W. Chapman...	Charleston	H. L. Reid.....	Charleston.
Moniteau	J. B. Stewart...	Clarksbury	J. B. Norman....	California.
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Morgan	J. D. Hubbard...	Versailles	J. T. Beale.....	Versailles.
Nodaway	J. A. Larrabee...	Barnard	F. R. Anthony...	Maryville.
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Phelps	W. H. Breuer...	St. James.....	S. L. Baysinger...	Rolla.
Platte	A. S. Herndon...	Camden Point...	G. C. Coffey....	Platte City.
Putnam	I. F. Noel.....	Unionville	J. H. Holman...	Unionville.
Randolph	J. C. Ridings...	Cairo	D. A. Barnhart...	Huntsville.
Ray	Jas. W. Smith...	Richmond	C. B. Shotwell...	Richmond.
Reynolds	J. M. Lowery....	Centerville	T. W. Chilton...	Corridon.
Saline	D. C. Gore.....	Marshall	D. F. Bell.....	Marshall.
St. Clair.....	W. Cline.....	Appleton City...	E. D. Miles.....	Osceola.
St. Louis.....	B. M. Hypes....	2005 Victor St...	T. A. Hopkins...	Century Bldg.
St. Louis Co....	R. D. Moore....	Central	H. G. Wyer.....	Kirkwood.
Schuyler	J. T. Jones.....	Queen City.....	H. E. Gerwig....	Downing.
Scotland	W. E. Alexander.	Memphis	O. F. Pile.....	Memphis.
Shelby	Wm. Carson....	Shelbyville	L. W. Dallas....	Hunnewell.
Stoddard	T. B. Turnbaugh.	Bloomfield	R. D. Corbin....	Bloomfield.
Sullivan	J. C. Kissinger...	Milan	G. S. Milnes....	Milan.

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

The Secretary of the County Society will please furnish the Secretary of the State Society the dates of the Meetings of his County Society.

COUNTY.	DATE OF MEETING.
Atchison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Bi-Monthly. First and Third Friday.
Butler	Monthly.
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	Monthly. Second Tuesday.
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	Subject to the call of the President.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Crawford	Monthly.
Current River.....	Quarterly. August, November, February, May.
Daviess	Monthly.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Monthly.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of January, March May.
Iron	Monthly.
Jackson	Bi-monthly. Second and Fourth Thursday.
Jasper	Bi-monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen.....	Quarterly. October, January, April, July.
Laclede	Bi-annual. First Mondays May and November.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Semi-Annually. Fourth Thursday in October.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Miller	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Nodaway	Monthly. Second Tuesday.
Pettis	
Phelps	Quarterly. March, June, September, December.
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Randolph	Monthly.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Clair.....	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Louis.....	Weekly. Saturdays.
St. Louis County.....	Bi-monthly. Second and Fourth Wednesday.
Schuyler	Bi-monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard.....	First Wednesday in March, June, Sept. and Dec.
Sullivan	Monthly.

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Counties in bold face type not yet organized.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

VOLUME I.

NOVEMBER.

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ORIGINAL ARTICLES.

THE MANAGEMENT OF IRREPARABLE CRUSHED EXTREMITIES.

BY C. H. WALLACE, M. D., St. Joseph, Mo.

In this short paper I wish to call attention to a line of treatment I have resorted to in the management of this severe class of injuries, which, in my experience, has yielded results far superior to the usually accepted methods.

The impress of antiseptic and aseptic treatment of wounds has been sufficiently strong to largely stamp out one of the most baneful sequella of traumatic infectious diseases, namely, moist gangrene, yet in the face of the most painstaking antiseptic measures we do have the engraft of gangrene in a certain number of these injuries.

The puzzling question has been the adoption of methods and means of management that will eliminate the possibility of this complication.

The amount and character of the infectious material that is necessarily present to a greater or less degree in accidental wounds, the extent of devitalization of tissue and the individual resistance of the patient, are all factors that enter into the possibility of the onset of gangrene in this class of cases, and our inability to measure

any of these conditions has tried the judgment of the most experienced to even suspect which case more than another is likely to the development of this destructive and often fatal process.

The onset of gangrene after amputation through apparently normal tissue with the practice of the most thorough antiseptics, has been the bane of surgeons. Concomitant with the demonstration of bacteria as the prime cause of the bad behavior of wounds, came the axiom of free drainage, the cardinal principle in accidental surgery.

Acting upon this principle, the open treatment of amputation in gangrenous extremities, followed by frequently changed hot moist aseptic or antiseptic dressing, has been the custom among experienced surgeons for a number of years.

This procedure, while a marked advance and resulting in a lessened mortality, is still far from ideal, in that, in a certain number of cases, the gangrenous process would attack the stump.

The purpose of this paper is the suggestion of the preventive method, a method that will reduce the possibilities of gangrene to a minimum.

Having lost several cases in my own practice by the spreading of the gangrenous process to the stump after secondary operation, it occurred to me to carry the open treatment of the stump a step further and practice it at the immediate or primary operation. I have now practiced this method in a number of cases recently without apparent tendency to gangrene and without death. The amputation is done, the flaps formed, not a suture is applied, but the stump left wide open.

A moist hot dressing of normal salt solution was applied to favor the most perfect drainage, the extremity elevated and put to rest upon a splint and the dressing changed once or twice in the twenty-four hours. To favor the retention of heat, the dressing was enveloped in oil of silk.

In a recent paper by Dr. Van Buren Knott of Sioux City, Iowa, he had resorted to a procedure in cases after gangrene has commenced, which has suggested to me, what, in my mind, is a further improvement in the management of these cases. I use Dr. Knott's own words:

The procedure is as follows: "Being confronted with a case of traumatic gangrene of an extremity, estimate as exactly as possible the line between the diseased and healthy soft parts, and having first, under anesthesia, made a most careful and complete disinfection and cleansing of the skin, puncturing all bullæ and removing all discharges, envelop the gangrenous area in a sterile towel up to the

line selected, and at this point make a circular amputation, cutting through soft tissues and bone at the same level.

Ligate carefully all bleeding points, including none of the perivascular tissue in the bite of either forceps or ligature.

Leave the wound absolutely open, not introducing a single suture, and apply moist dressings of gauze saturated with salt solution, these dressings to be changed from two to four times in twenty-four hours, as the circumstances of the particular case demand."

I am satisfied that the application of this method at the primary amputation would reduce the liability to gangrene to a minimum, and hence the mortality to almost nil.

That during the dissecting up of flaps tends to lower the already devitalized tissue; that the use of sutures in the primary operation does, by tension, interfere with the blood supply and tend to tissue death and the sealing up of infectious material by the coaptation of flaps, favor the development of a gangrenous process, seems to me cannot be rationally denied, and the verification of these facts have been borne out clinically by a few cases I will here briefly narrate.

Case 1.—W. H. L., a switchman for the Burlington Railroad, was admitted to the Ensworth Hospital May 15th, at 5 A. M., immediately after being run over by a switch engine, with both legs crushed at middle third. He was moderately shocked. Was given strychnine and morphine and atropine hypodermically, and heat applied by means of hot water

bags. Was sufficiently reacted to be taken to operating room at 8:30 A. M., three and one-half hours after accident, where limbs were cleansed under anesthesia and amputated and flaps united. Was given 1 quart hot salt solution by rectum and removed to a hot bed. During the day he had 1-30 gr. of strychnine every four hours and morphine as needed to relieve pain.

May 17th, the second day after amputation, evidences of infection were manifested by mild delirium, extreme restlessness, intense pain when not relieved by morphine, frequent emesis and a temperature 101.3-5 and pulse 120.

May 18th, general condition bad, hiccough, stump moist, discolored, indolent, with a sero-sanguinous discharge, beginning gangrene.

Taken to operating room and double reamputation done through apparently healthy tissue right leg above knee and left through joint and flaps united. Stumps were wrapped in large rolls of gauze wrung from hot 1 per cent. carbolic acid and supported upon splints. Transfusion was done during operation. Following second amputation, patient's temperature 99, general condition became somewhat better, but pain continued unbearable without morphine until the 22d, when he suffered a slight hemorrhage from left stump. Examination showed a destructive process posteriorly extending along course of vessels yet popliteal was apparently intact.

The 23d, the stump was oozing, the cavity was irrigated and hot carbolic dressings continued. The 23d, evidences of sepsis were more pronounced, temperature 103, sweating

increased, restlessness extreme and frequent emesis. There was no change in his condition further than a gradual failing of vitality until the morning of the 25th, when a free hemorrhage started, which was immediately controlled by compression and tourniquet by the interne. He was taken to the operating room and the popliteal found to have been invaded by a localized gangrenous slough. Vessel was ligated, he was transfused, but was too much exhausted for the slight blood loss and the anesthesia, and died without reaction.

This is a brief clinical picture of death, eleven days after accident, from a slow sepsis. A sepsis that if not nipped at the primary operation develops a progressive tendency that refuses abatement in the face of active and constant attention, with heat, antiseptics and stimulation on the part of the surgeon and a good constitution on the part of the patient,

I felt at the time that this man should not have died, and I know now from a later experience with the management outlined in my paper, he would not, had he have had this treatment.

Case 2.—Chas. B., age thirty-six, freight hauler for Burlington railroad, June 14, 1903, attempted to board a moving street car while in an intoxicated condition, was thrown under, and wheels passed over left ankle. Upon his admission to the Ensworth Hospital shortly afterward, the limb was found to be irreparably crushed and limb was cleansed under anesthesia, amputation was done at upper part of lower third of leg with cuff flaps and dressed open with hot salt solution and placed at rest upon

a splint, with instruction to change dressing night and morning.

June 15th, hospital reports show patient, pulse 84, temperature 100, free from pain and in general good condition. His chart showed a convalescent history from day to day. June 20th, six days after injury and primary operation, the stump was sweet and of healthy appearance, the flaps were freshened and coapted by suture. Union took place primarily and he left the hospital June 30th, sixteen days after admission.

Case 3.—J. A., age thirty-six, driver of grocery wagon, admitted to the Ensworth Hospital December 11, 1903, at 8 P. M., after having been run into while driving across the tracks of the street railway company. Examination revealed an ankle crushed by wheel passing over it. He had but little shock, so was removed immediately to the table and limb cleansed for operation. The wound seemed so free from foreign material I could not refrain from doing a complete operation. Flaps were sutured and rubber drainage inserted in lower angle and a hot moist dressing applied and stump put to rest upon splint. December 12th, temperature 100, pulse 100, complaining of pain in the stump. Ordered morphine and atropine, and dressing changed. December 13th, sero-sanguinous discharge from drainage tube. Patient restless, temperature 101; gave castor oil and bromidin at bedtime, and dressings to be changed every four hours.

December 14th, had a bad night. Complains of stump, flaps look a little dark, discharging dirty amber-colored

liquid, some odor, looks suspicious, removed all sutures and irrigated with very hot water for one hour and reapplied hot dressings. December 15th, patient slept all night, skin over-flaps had regained natural color, no odor to stump, has healthy appearance, temperature 99 degrees and pulse 90. Moist dressing was continued until December 22d, when he was taken to the operating room and flaps freshened and coapted and dressed dry, primary union took place, with the exception of small stitch abscess which detained patient until January 13th. The pain in this case for the first three days, with the bad behavior of stump, demonstrated to my mind the danger of closing up. Had we failed to reopen on the third day this case would certainly have developed a gangrenous stump with the necessity of a greater loss of limb from reamputation and possibly loss of life.

Case 4.—Mr. H., aged twenty-four. Track employe of the Burlington Railroad. Fell or was pushed from the car platform while passing from one coach to the other as the train was pulling out from station. He went down between coach and station platform and the wheels passed over both legs below the knee. First aid was rendered by a local physician and he was brought immediately to the Ensworth Hospital, a distance of forty miles. Upon admission some two hours after accident, he had fairly reacted from shock, so was taken directly to table. Disinfection and cleansing was carried out under anesthesia and both limbs were amputated by circular method, cutting through soft tis-

sues and bone at same level, the left at lower third and right at upper third, at site of respective injuries.

Vessels were ligated, stumps wrapped in large moist hot gauze dressing covered with oil of silk and placed to rest upon posterior board splint and dressing ordered changed night and morning. He was given one quart of hot salt solution by rectum and removed to a heated bed.

Post operative reaction was prompt and good. His general condition continued good, was free from pain, temperature never exceeded 99 degrees, stumps remained sweet for the following six days, when he was taken to operating room and the classical circular amputation was made, by dissecting up the flaps already outlined and sawing the bone at the proper level. Primary union occurred with the exception of some stitch irritation in one stump.

Case 5.—Occupation unknown, aged thirty-two. In company with his pal, was beating his way from St. Joseph to Savannah, his home. Was upon the tender of a Burlington train. When nearing Savannah, he was discovered by the fireman and attempted to jump off, but lost his footing and went down between the tender and coach and the wheel went over left ankle and badly contused right foot. He crawled into Savannah, a distance of one mile, and was immediately brought into St. Joseph by train crew. He arrived at the Ensworth Hospital at 9:50, P. M. March 2d, without shock and was immediately removed to the operating table, was given whiskey, which he requested, also morphine, strychnine and atropine hypodermically and anes-

thesia begun. Limb was thoroughly cleansed, disinfected and amputated, all structure upon the same plane at the upper margin of traumatism. Was given salt solution by rectum, one quart, and dressed and put in hot bed as in previous case. He sustained fracture of the first and second metatarsal bones, contused foot was freely incised upon either side, drains inserted and placed upon perforated Levis splint, with hot dressing every twelve hours. His condition continued good for the following six days, his temperature never going above 100 4-5 degrees, which was the morning following operation.

March 8th, sixth day after accident, the stump was clean, sweet and healthy. He was taken to the table and cuff flaps dissected up and bone sawed at required point and put to rest upon board splint, with heavy dry dressing. Drains were removed from right foot, it was placed in plaster cast, with windows. Primary union took place and the stitches were removed upon the eighth day.

Case 6.—March 26th, J. W., aged forty. Section foreman for the Burlington Railroad was struck by freight engine, knocked from the track, the wheels passing over left foot at metatarsal joint, was conveyed immediately to the Ensworth Hospital. Foot was cleansed under anesthesia, a Chopart's amputation was done, preserving all of the skin except that of the toes, but removing the crushed muscles and tendons. Skin flaps were separated by iodoform gauze and hot salt solution dressing applied. At the end of the fourth day, the wound looked so well I decided to freshen and coapt the flaps with sutures, which could be

done without tension by reason of their good length. Moist hot dressing was continued. Upon the fifth day, evidences of flap necrosis were present. Stump began to pain him for the first time since injury. Sutures were removed and flaps separated and stump irrigated for one hour with hot salt solution and hot moist dressing reapplied. The entire flap sloughed off, but without extension into stump. The fact that the flaps showed no evidence of necrosis until their vitality was lowered by suture, argued to me that they were coapted too soon and before revitilization had completely taken place.

I believe if they had been undisturbed until the 7th to the 10th day we would have saved them. The stump in this case was skin grafted April 20th.

I make no claim to originality of idea, but merely apply at the primary

operation a method, which Dr. Knott originated and applied after the onset of gangrene. My claim is that, its application primarily everts its application for gangrene, in that gangrene will seldom, if ever, occur.

The advantages in this method may be summed up as follows:

1. Its application within the bounds of safety, to patients too much shocked for any other surgical interference.

2. The exposure of a minimum area of raw surface for absorption from an infected site.

3. Drainage ideal in character.

4. The most favorable conditions possible for the revitilization of tissue devitilized by trauma.

5. By virtue of its simplicity, its application by practitioners who are not prepared by previous surgical experience to do a typical amputation without consulting authorities.

LA GRIPPE, OR INFLUENZA, AND ITS TREATMENT.

By R. B. FEWELL, M. D., Ph. D., Montrose, Mo.

I shall endeavor to notice this subject only in a few of its phases that are of the most importance to the physician as he finds it in his daily work, instead of going into minute detail regarding this now well-known, prevalent and devastating disease.

By la grippe we mean the epidemic fever, characterized by a catarrhal inflammation of the air passages or the mucous membrane in general, and by nervous disturbances which may be profound, and, when so, are accompanied by extreme debility.

According to Conklin, since the

sixteenth century repeated epidemics have appeared at irregular intervals, and have rapidly spread over large portions of the civilized world. It is maintained, however, by many authors, and perhaps correctly, that not a few of the epidemics described in the earlier medical writings, under such names as catarrhal fever, Italian fever, etc., were epidemics of true la grippe, or influenza.

Ely-Jelliffe, M. D., tells us that H. Fehr Von Koenigshoven, in the *Journal of Medical Science*, July, 1899, described a markedly virulent epidemic

which occurred in 1387, which was universal over the entire European country, and Fehr then mentions the interesting fact that it was then noted that, following the disease, there was a tendency to mental trouble, hypochondriasis, melancholia, depression and even suicide.

Since the great epidemic of 1847-48, in which more than one-fourth of the population of London and fully one-half that of Paris were afflicted, there have been no widespread or severe visitations of this disease, until the early part of 1879, and again in 1880. It then prevailed extensively throughout the United States and Canada. But the epidemic and its consequences which chiefly concern us is the epidemic begun in 1889 and 1890, after several years of comparative immunity. It had been the experience in former epidemics, in so far as medical literature affords us an insight into their history, that the disease raged for two or three years, abated and finally disappeared; but the history of the present invasion has been far from this. La grippe has been epidemic almost every year since 1890, in this country at least, and if we refer to the English writers the same condition prevails in other countries. An editorial writer of Europe says: "This is the tenth consecutive winter during which epidemic influenza has prevailed in Great Britain, after a period of immunity which had lasted nearly forty years. You will remember it was hoped at the beginning of this invasion, that after prevailing for one, two or, at most, three years, the epidemic would pass away, as had been observed on previous occasions, but this has not

been the case, and we have had annual recurrences. Though not so extensive as the first two years, still they have been sufficiently widespread to cause very serious inconvenience, and on many occasions a very distinct increase in the death rate, and, as is generally believed, to be a notable factor in a great number of chronic maladies, especially so of the nervous system, which are characteristic of the present generation."

The histories of the various epidemics prove clearly that the disease is not in any way connected with climate, soil, elevation or any known surrounding cause. The phenomena of epidemic influenza or grip are comprehensible only upon the theory of a specific infecting virus or germ as its exciting cause. Its rapid diffusion, sweeping over entire continents in a few weeks, affecting nearly the entire population in certain districts, irrespective of age, sex or condition, within a few hours after its first appearance, indicate some powerful morbid agent in the atmosphere, which acts specifically on the respiratory organs and the nervous system.

Seiford and others have described a peculiar micrococcus found in the expectoration of patients suffering from influenza, to which they attributed the development of the disease. But to Cannon Pfeiffer has been accredited the honor of settling the question as to whether influenza was due to a special bacillus or no, and now, I believe, it is generally conceded that the Cannon Pfeiffer bacillus is the cause of influenza.

The question has been propounded, "Is there an influenza proper, due to

a specific germ, the Cannon Pfeiffer bacillus, the toxine of which so profoundly affects the nerve centers and vital forces, as does the toxine of the Clebs-Loeffler in true diphtheria? Is there a pseudo influenza, or grip, such as the ordinary influenzal cold, or catarrhal fever, comparatively harmless to the vital centers, due to a mixed infection from which the specific germ is absent, and which bears the same relation to true influenza that pseudo diphtheria does to true diphtheria?

"If this question be answered in the affirmative by the pathologist, as now seems probable, then the bacterial diagnosis of influenza will be second in importance to that of diphtheria, and it is to be hoped that there will be some ready method of detecting it discovered and its treatment followed by as good results."

A disease of such grave manifestations, that often leaves an impress on its victims for years after; that often fatally complicates so many other maladies as to increase the percentage of the general death rate to such an extent, especially in cases of previous poor health and those past middle age—such effects have been attributed to influenza. Now, if this be true, the subject deserves at our hands a very careful consideration, and its early recognition and proper treatment must obviously be of vast importance.

Influenza is generally acknowledged to be highly infectious and contagious, and should be treated as such. It may begin abruptly, or be preceded for a few days by a feeling of indisposition or general malaise. A well-marked chill or chilliness, alternating

with flushing and heat, may mark the onset to an attack, closely followed by a general congestion or hyperæmia of the mucous membrane of the nose and throat. Paroxysms of sneezing, and sometimes epistaxis, coughing, hard or rasping at first, growing more aggravated and distressing at night. Eyes injected and watery; nares irritated, and presently secrete an abundance of mucus. Throat sore, voice hoarse and a general feeling of malaise, rising temperature, varying in intensity according to the severity of the case, sometimes, where complications are present, which is not at all uncommon, rising from 104 degrees to 106 degrees F. Pulse exaggerated in frequency and changeable in quality and rhythm. Headache; pains of more or less severity in the muscles of the neck, back or limbs. The cough at first is harsh or rasping, with but little expectoration, but the expectoration becomes more abundant as the disease progresses, and may contain streaks of blood. Sharp pains in the chest or sides, with difficult breathing, may at times be experienced, and yet there may be no recognizable pulmonary lesions.

The catarrhal symptoms, which were so prominent in the beginning of the disease, may begin to subside or decline about the third or fourth day, and in mild and uncomplicated cases the patient soon be seemingly or actually restored to health and leave no trace of impaired constitution behind. These cases are fortunate, but it is the more unfortunate cases, or those aggravated cases that have not done well, to which we wish more especially to give our attention. The

more important complications of la grippe are those arising from the characteristic lesions of the respiratory tract, such as laryngitis, capillary bronchitis and catarrhal pneumonia, which in reality are the extension and exaggeration of the ordinary primary lesions. Many intercurrent or pre-existing maladies are gravely affected by la grippe, among which may be mentioned phthisis, emphysema and diseases of the heart, kidneys and nervous system. The nervous symptoms are always decided in la grippe, such as severe pain in the eyeballs, headache and a general neurasthenia, as well as a cutaneous hyperæsthesia of the head and neck. Patients from the beginning of their illness are weak, and show extreme loss of muscular strength and great loss of vital force. Therefore, any pre-existing organic lesion may be very decidedly unfavorably influenced by la grippe.

Treatment: In the mild and uncomplicated cases I usually prescribe stay in doors, laxatives to keep the bowels open, salol, quin. sulph. and strychnine. For cough, heroine hydrochloride, acidi hydrochloric dil. syr. pruni codeine; refrigerating

drinks, an occasional opiate for pain and to relieve nervous tension, and such hygienic measures as are indicated in any acute infectious disease.

In the more aggravated cases have them stay in bed, regulate bowels, take a bath, have them use a nasal douche of warm water with little chloride sodium or soda bicarb. to cleanse the mucous membrane, then have them use a spray composed of menthol, eucalyptol and liqd. oleophene; may use listerene or glycothymoline.

Give quin., iron and strychnine as a tonic. Take heroin, either in tablet form or elix. heroin comp. Syr. codeine comp. may be given. Give refrigerating drinks, stimulants. Support heart by fld. ext. digitalis or Da Costa's tablet.

All depressing remedies and measures should be carefully avoided, since the nature of the disease is so devitalizing upon both the mental and physical system. I watch my cases carefully for complications involving the heart and lungs, which are apt to occur, since most of the deaths have resulted from such complications, and the fatality has been considerable.

INFLAMMATION AND SUPPURATION OF THE FRONTAL SINUSES.

BY T. E. POTTER, M. D., St. Joseph, Mo.

One of the most interesting subjects with which surgeons and physicians have to deal, is inflammation and suppuration of the frontal sinuses. This trouble is much more frequent than is generally supposed.

The frontal sinuses are two cavi-

ties, varying in size and shape, situated to the right and left of a median line and anterior to the ethmoidal notch. They are lined with mucous membrane, reflected up from the mucous membrane of the nose, through a canal, on each side, known as an in-

fundibulum; and through variable ethmoidal cells situated at the base of the internal ends of their cavities.

This mucous membrane resembles the mucous membrane lining the antrum of Highmore, but is thinner, and is covered with columnar ciliated epithelium which waves constantly toward the exits as all cilia do. It is easily detached. These canals are very small in children, and are not fully developed until after the period of puberty. The larger and more prominent the superciliary ridges, the greater the size of these sinuses. The upper and anterior osseous portion is the thickest and strongest, while the posterior and lower portion is thin. At the internal lateral portion we have the thin and delicate lachrymal bone, which sometimes is not completely osseous, but where it unites with the frontal, the suture is fibrinous. Each sinus has an ostium frontale, through which the contents of the sinus passes through the infundibulum into the middle meatus of the nose. On same side the anterior ethmoidal cells also have openings that are called ostia. These sinuses generally have a septum which divides them. There is occasionally an anomalous condition met with in which there is no septum, but a direct communication between the two.

From the peculiar arrangement of the anterior ethmoidal cells, and the ostium frontale, any disturbance, especially of an inflammatory character, may cause stenosis of the exit, and prevent the free discharge of mucous and effusions as they form in these cavities.

It is often difficult to trace the causes of inflammation of these sinuses.

When it comes from an injury, we readily understand the origin of the trouble, but as to how the different bacteria get into these cavities, is not so easily accounted for, but they are always there under such conditions. Dr. A. Howard Lothrop says "that sinus affections accompany or follow acute infection or suppurative diseases, with any degree of frequency, is a comparatively recent discovery, but this conclusion is demonstrated by recent bacteriological and pathological examinations at autopsy." It has been observed that troubles of the frontal sinuses in adults have been a sequel of pneumonia, influenza, cerebro-spinal meningitis, erysipelas, typhoid fever, peritonitis and small-pox. Syphilis may invade these sinuses, but there is only slight evidence that tuberculosis has been the primary cause.

We also have malignancy and new growths affecting these sinuses. The pathological conditions are very much like those affecting other parts lined by mucous membrane; and, if there is free escape of fluids secreted by the mucous glands and of the infiltration, we soon have a ready and happy resolution taking place; but, on the contrary, if this does not occur we have conditions that destroy health and threaten life. The symptoms of inflammation of sinuses are local and general. The local are the most important, and are the ones upon which we most rely. They are subjective and objective.

Pain as a subjective symptom is important, and from the extensive œdematous condition which exists, and the not giving way of the osseous canal, the pressure is great and the

nerve filaments suffer. The frontal headache, that is not relieved by quinine or any of the coal tar preparations, is characteristic of this inflammation, also the bursting feeling that occurs at the lowering of the head; the distress between the eyes is sometimes very great and is not particularly referred to the supra-orbital nerve. Then this distress will suddenly disappear, when there is a free discharge from the nose, which is caused by the opening up of the ostium frontale and the passage of fluids through the infundibulum into the nasal cavity. The pain may produce dizziness, and frequently the patient complains of flashes of light before the eyes.

Tenderness is a valuable symptom, and pressure or tapping over the sinus will often cause suffering, the inside of the orbit may become very sensitive.

The sense of smell will often be materially interfered with. This is often observed in even the mildest forms. The constitutional symptoms may be rigors with fever, which are only relieved by an evacuation of the sinuses.

Objective symptoms are as follows: An accumulation of pus is found in the middle meatus, where the infundibulum makes its entrance into the nasal cavity. There will be crusts forming here, and, on awaking in the morning, the patient is compelled to cleanse the nose, either through the external nares or posterior nares. There is frequently an edematous condition of the eyelid and the eye on the side effected will be smaller than the eye on the other side. In chronic cases of empyema a fistula is some-

times formed, and there may be, at the corner of the eye, a mucocele or a pneumocele where there has been gas or air entering the tumor; there may be also some chronic condition of the lachrymal sac and nasal duct, that has become infected from a fistula from the sinus. A fistula may open back at the extreme internal posterior portion of the sinus and cause an abscess within the orbit, disfiguring as well as damaging the eye. In empyema of the frontal sinus the pus is liable to peptonize through any of the osseous structure, and if it goes through the posterior wall it will produce a meningitis or cerebral disturbance which will soon end the life of the patient. Auscultation will give some pain. Inflammation of accessory sinuses often occurs. The antrum of Highmore is liable to become affected in connection with suppuration of the frontal sinus.

Trans-illumination is not of service. The prognosis of acute cases is most generally favorable; we might say a large majority of them recover. But an acute case may become chronic, and while life is not endangered, the patient's health may be materially injured by the occurrence of a fistula and a wretched purulent discharge constantly from the nose, may cause the most unending and distressing annoyance. Once a diagnosis is made, the treatment is very interesting; and I am, indeed, sorry that our twenty minutes' limit will not permit me to discuss it as I should like to do.

In acute stages, when the different ostia, say the ostium frontale and the smaller ostia of the various ethmoidal cells are occluded on account of the thickening of the mucous membrane,

the object is to relieve as quickly as possible the distress occasioned by fluid confined in inflamed cavities, such as these sinuses are. In order to do this the treatment should be directed to the parts with as much activity as the circumstances will permit. We have these acute conditions frequently occurring in la grippe and hay fever. Very hot applications over the glabella and superciliary ridges may be extremely beneficial. The local application of a 4 per cent. solution of cocaine to region known as the hiatus semilunaris and to the bulla of the middle turbinated bone will reduce the swelling of the inflamed and erected tissue and allow the different ostia to open, so that free drainage can take place. This cocaine should be applied upon a pledget of cotton. We have also obtained most valuable results from the local application of the adrenaline chloride, and this remedy is much more satisfactory than cocaine, for its results, while not so positive, are more lasting, and it does not excite the patient. Then the danger of establishing the cocaine habit should always be taken into consideration when a physician commences the use of this drug in the nose.

Warm douches of the normal salt solution are of service. A little Scotch snuff will many times stimulate the opening of these ostia. Menthol inhalations will often give relief when the trouble is not too violent. The fever which generally accompanies these acute attacks should be kept under control by the use of quinine and the coal tar preparations and free purgation. The chronic form, where an empyemic condition has been es-

tablished, is certainly the most interesting. A fistula may exist, causing a discharge near the internal canthus of the eye or an abscess in the orbit, or, as I have seen, an abscess may occur high up on the forehead; again, the ostium frontale may be open, and the ethmoidal cells very much diseased. When this is the case a resort to surgical interference is an absolute necessity. To establish free drainage through the nose by probing up through it is a very fascinating idea, but a most difficult one to accomplish. No operator can say with absolute certainty that his probe is in the sinuses, even if he has removed, before undertaking the probing, the operculum of the middle turbinated bone. He may only be in an ethmoidal cell.

Dr. Howard A. Lothrop, of Boston, in the *Annals of Surgery*, February 18, 1899, page 181, says: "During life it is impossible to decide where the point of the probe may lie, and on the cadaver the uncertainty is nearly as great." This blind method of treatment impresses me as liable to do damage to the ethmoid bone, cells and skull, without any benefit, excepting of a temporary nature. While we do not condemn the attempt in a general way, we do not by any means advise it. Another reason is that there is no certainty as to the anatomical arrangement. If the ostium frontale is open, which is many times the case in a large majority of empyemic conditions of the frontal sinuses, a warm salt water douche is valuable, also keeping the nose well cleansed. Fine results have followed the use of heavy doses of iodide of potassium, in milk, three times a day. I have used very satisfactorily, in cases

where the nose was not too sensitive, the following prescription :

℞ Pulv. sanguinarium.....60 grs.
Pulv. camphor..... 4 grs.
Borax10 grs.

Mix. Have patient to use as a snuff twice a day.

The external operation is, in my judgment, the only operation that will cure. Shave off eyebrows, if both sides are affected, make an incision through the soft parts along superciliary ridge and turn down and up a flap; the osseous portion can be readily opened with a chisel; this opening should begin in the bone internal to the supra orbital notch; the moment the osseous structure is cut away the mucous membrane bulges up past the surface of the bone. Then open the mucous canal freely as large as the osseous opening, when the fluid will escape. In making the opening in the bone care should be taken not to fracture the orbital plate and to avoid breaking off the pulley that retains the tendon of the superior oblique muscle. An opening can now be easily made into the bone by tak-

ing a pair of pointed hæmostats and pushing them downward, a little backward and inward into the middle meatus of the nose. A small rubber drainage tube should be inserted through the opening, making its exit at the external nares. This will drain the sinus. The flaps can be closed in three or four days if the physician prefers to wait sufficiently long to be sure that drainage is perfect. Through this tube the sinus can be irrigated with an antiseptic solution. Before inserting the drainage tube the canal should be curetted out, and not only this, but I have found the application to the external portion of the canal of the pure chloride of zinc valuable because it destroys the unhealthy condition of the mucous membrane. After this is done the cavity should be cleansed out well, then packed with iodiform gauze for three or four days before closing the flesh wound. The physician should examine as thoroughly as possible the conditions of the ethmoidal cells.

OUR RELATION TO ONE ANOTHER.

BY JOHN M. KENNEDY, M. D.

The practice of medicine, being the application of knowledge to the prevention, cure and alleviation of disease, is easily the first of all callings. Its successful application lengthens human existence, diminishes human suffering, and increases human happiness. The past is dead and gone forever; the future is something we know naught of; so let us do today, in the ever-present now, our duty to humanity and to one another.

The members of the medical profession seem to be a class set apart. They have the distinctive title of doctor, although it is applied sometimes to those who have achieved distinction in other work. It is, however, in the vernacular, the title of the physician. We are colleagues, confreres, engaged in the world's greatest work; and it is well to understand our relation to one another. The Golden Rule, given by the first

of all teachers, the Great Physician, would seem to cover the ethics of the situation: "Therefore, all things whatsoever ye would that men should do to you, do ye even so to them;" or, as the next great teacher, second only to the Divine One, has it: "This, above all, to thine own self be true, and it must follow, as the night the day, thou canst not then be false to any man."

It is peculiarly graceful and proper for those younger in the profession to ask and receive counsel and assistance from those older and more experienced. On the other hand, it is eminently proper for those fresh from the centers of medical learning, who have had the advantage of witnessing the technic and seeing the work of the great leaders of the profession, to give of their more recent and up-to-date knowledge, both in private and in a medical society, to those who have not had this advantage—avoiding, however, the egoism of young Doctor Know-It-All and the presumption of the immature specialist.

It is certainly an important duty we owe to one another to meet in the medical society, there to give and take as opportunity offers.

I would commend for careful consideration the principles of medical ethics adopted by the American Medical Association in lieu of its former code of ethics. I think it would be to our advantage, and would assist to keep up good-fellowship and the solidarity of the profession, if every one would read carefully these principles at least once a year, and particularly Chapter II.

It is a common thing for outsiders,

the laity so called, to speak to one physician disparagingly of another, evidently thinking that such remarks are pleasing to the one addressed. This, I think, we may in a great measure suppress by showing that such remarks are displeasing, and that we do not consider it complimentary to be elevated by the pulling down of another. Always speak well of a worthy colleague when it can be done with a proper regard for truth and honor—avoiding, however, that most contemptible of all ways of speaking of another, "damning with faint praise."

There is a certain etiquette of consultations, a knowledge of which facilitates business and brings out more fully a free expression of opinion. When three or more physicians are in consultation (and here let me emphasize that it is exceedingly discourteous to fail to be prompt at the time appointed for the consultation), the attending physician is in the attitude of chairman. He should arrange for a full and complete examination of the patient by the others. He should give the history, diagnosis, prognosis and treatment of the case up to that time. He (the attending physician, or chairman of the consultation, as he may appropriately be called), after learning that all have finished investigation of the case to their entire satisfaction, should now call on the youngest member of the consultants to give his opinion, and then call on the other members in succession according to priority in the profession. All having expressed themselves, including the chairman, and a general discussion having been indulged in to the

fullest and freest extent, it is in the province of the chairman to announce the diagnosis accepted by the consultation, and to outline or state specifically the treatment agreed upon, and also to state the prognosis. All this is evidently necessary in the interest of harmony and for the good of the patient. If this is done to the expressed satisfaction of all present, the consultation is dissolved, and the consultants have no further connection with the case. If, however, the consultants do not agree, and a mutually satisfactory compromise in the interest of the patient cannot be reached, it is the privilege and duty of the dissenting member or members to withdraw from the consultation.

There is one word which covers this whole matter, a guide which points unerringly the correct way under all circumstances; which stands out bright and beautiful as the morning star. That word is Ethics, a word loved by all true members of our profession.

Ethics is duty! Ethics is moral conduct! Ethics is that force which smooths the rough places of life; it is the oil of gladness; the perfume of social intercourse. Ethics is har-

mony; by ethics is the universe upheld, and suns and stars are guided in their course. Ethics is power and honor, justice, goodness and truth. Ethics is the mailed hand that rights every wrong, that brings order out of disorder, that conquers chaos. Ethics is the voice of the Lord God Omnipotent calling the wayward sons and daughters of earth back to the Father's house. Ethics, properly applied, is paradise regained. Ethics is peace, good will to men. Ethics is God incarnate saying to the waves of trouble and sorrow that threaten to engulf helpless humanity: "Peace; be still!" Without ethics, life would be a burden, and the question, "Is life worth living?" would indeed be pertinent.

Therefore, O ye sons of Hippocrates, be good! Be pure! Be kind and gentle! Be honest and fearless! And it must follow, as the day the night; as sure as right is better than wrong; as sure as strength is better than weakness; as sure as health is better than sickness; as sure as joy is better than sorrow—so sure will you be ethical.—*New York Medical Journal*.

HOW TO CURE, BY A NOVEL METHOD, HOPELESS CASES OF DEAFNESS AND DISCHARGE FROM THE EAR.

BY ROBERT BARCLAY, A. M., M. D., St. Louis, Mo.

Mr. President and Gentlemen:—Searching, in my limited and somewhat unpopular field, for something that might prove of interest to you all, it occurred to me that it might be well, upon this occasion, to call your attention to a rather novel

method of affording relief to a large class of cases popularly deemed hopelessly incurable.

I am encouraged to believe that this will be of real practical service to you, more especially for the following reason:

The Code of Ethics of the American Medical Association, which, for fifty-four years past, has served the members of this association "as the standard by which to regulate their intercourse with each other, with their patients, and with the community at large," explicitly declares* that "A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient, etc. To decline attendance under such circumstances would be sacrificing to fanciful delicacy and mistaken liberality that moral duty which is independent of, and far superior to, all pecuniary consideration." Desertion or abandonment of such a case is still further discountenanced by the declaration † that "Consultations should be promoted in difficult and protracted cases, as they give rise to confidence, energy, and more enlarged views of practice." Furthermore, a cogent reason why such patient should not be turned helplessly adrift by his own regular medical attendant is found in the further declaration ‡ that "A patient should also confide the care of himself and family, as much as possible, to one physician; for a medical man who has become acquainted with the peculiarities of constitutions, habits and predispositions of those he attends, is more likely to be successful in his treatment than one who does not possess that knowledge." That such patient should be given the

benefit of this principle by his own physician invoking the aid of counsel, rather than that he should be discarded without, our Code emphasizes by the statement, § "It is of great importance that physicians act in concert." ||

May I not, then, presume upon your interest, fortified thus in the opinion, first, that cases "popularly deemed hopelessly incurable" should not thus be abandoned by their own doctor; not cast adrift by them, to determine for themselves the question of appropriateness to their condition of any remedy whatsoever, plausibly suggested by a strange medical adviser, or his qualifications for administering, if desirable, said remedy in a thoroughly efficient manner; and, second, that such patients should not be left, in their desperation, a prey to the advertising quack, the proprietary medicine man, and the vendor of mechanical frauds for the alleged relief of the afflicted. Urging upon you, rather, in every individual case, the solemn obligation of remaining your patient's constant medical attendant, personally assuring yourself that a remedy suggested is appropriate to his condition; that the advocate of such procedure, or some other individual recommended is competent, by experience, satisfactorily to effect it; prepared to see that he does so, without his taking undue advantage of your patient—does his whole duty to your patient; willing and prepared to afford all possible advice and as-

* ARTICLE I.—*Duties of Physicians to Their Patients.* SEC. 5.

† *Ibid*, SEC. 6.

‡ ARTICLE II.—*Obligations of Patients to Their Physicians.* SEC. 3.

§ *Ibid*, SEC. 7.

|| Read "NEVER TURN YOUR CASES OVER TO 'SPECIALISTS.'" By Robert Barclay, A. M., M. D., in *St. Louis Medical Review*, July 20, 1895.

sistance to your consultant in this matter; and remaining with your patient as his medical adviser and guardian to the last—active and jealous always of his best interests ¶—let me turn directly to my subject.

The method of treatment under consideration is one, recently developed along rational lines, for the radical relief of the condition underlying the symptoms of so-called “catarrhal deafness” and of “running ear,” or “ear discharge,” in cases which, after having resisted the curative influence of ordinary remedies at the hands of presumably qualified practitioners, for years and years, have at last been abandoned as hopelessly incurable.

These cases are those where, on the one hand, every effort has been made to guard the patient from changes of temperature and moisture, to improve his hygienic surroundings, regulate his diet and improve the general health and tone of the system; where, when hypertrophy and hyperæmia of the mucous membrane, and closure of the Eustachian tube, have played the principal part, general treatment has been supplemented by judicious use of the Politzer bag and Eustachian catheter, and suitable local treatment of the nasal and naso-pharyngeal catarrh.

These are cases, where on the other hand, the patient, for months and years, going perhaps from physician to physician, has faithfully submitted to the prescribed treatment—such as “syndringing, astringent, caustic and antiseptic application; the insufflation

of powders; the application of electricity; the inflation and stimulation of the middle ear by means of air or vapors passed through the Eustachian tube; or treatment of the throat.”

Cases where measures such as these have been faithfully and intelligently carried out, oftentimes for years and years, and are found at last to be all in vain—these are the cases that I have referred to as “popularly deemed hopelessly incurable,” for a large class of which I would suggest a remedy.

It is not my purpose, upon this occasion, to recite the details of my personal experience with this remedy; but rather to ask your attention to a brief discussion of the fundamental surgical principles upon which it is based; more especially such as have been most strongly impressed upon me by experience. And I would add thereto, a description of what seems to be, a simple, sure and ready method of recognizing, off-hand, amongst apparently hopeless incurables—particularly when victims of chronic “catarrh”—those which can probably be relieved, at once and permanently, by this remedy. I beg to remark, in passing, that this test differs from the usual technical tests of hearing. It requires the use of no apparatus, no special instruction, nor any preparation, whatsoever, for its proper and instant application. Having once heard it plainly stated, any of you, or even a layman, can apply it; at any time, as a rule; and under any circumstances that admit of apparently casual conversation with the patient. Furthermore, the facts may be elicited—the test virtually made, in the course of such conversation,

¶ Read “FAIR PLAY FOR THE DOCTOR THAT RECOMMENDS THE ‘SPECIALIST.’ A HINT TO BOTH.” By Robert Barclay, A. M., M. D., in *St. Louis Medical Review*, March 4, 1899.

without the patient's even suspecting its import.

Surely, no modern physician need be ashamed to number this among his many practical attainments. Of the cases of which I speak today, the most distressing symptoms are mainly those of deafness, discharge from the ear, habitual low-speaking voice, dizziness, better hearing in a noise (hearing worse in quiet places) and aural distress, a feeling of tension or pain.

Now, some of these symptoms are common both to catarrhal and to purulent inflammation of the ear-drum, arising, as they do, from a *mechanical condition of altered tension and mobility in the auditory conducting mechanism*—or transmitting structures of the middle-ear, and their appendages—*lying between the external auditory canal, without, and the labyrinthine nervous apparatus within*;—a condition that disturbs labyrinthine tension, and acts as an obstacle to the normal transmission of the force of sound-waves, to and from a *functionally active labyrinth and auditory nerve, within*;—a condition attended with chronic progressive deafness, dizziness, noises in the head and ears, habitual low-speaking voice, better hearing in a noise (worse hearing in quiet places), aural distress—one, several or all of these symptoms.

Whether this condition obtains in catarrhal or in purulent inflammation of the ear is immaterial, for *the same principle guides us in either case, in our effort to relieve its symptoms—and that principle is to eliminate this condition.* To do this, along rational lines, so as to accomplish radical results, the method of treatment has recently been developed, step by

step, whereby we *effect the liberation of the deeper portion of the auditory conducting mechanism, still movable, from the permanently immobilized portion, without; with provision for natural drainage, and for entrance of aerial sound waves directly to the deeper, still movable portion of the auditory conducting mechanism.*

An *additional feature, however, presents, in the case of discharge from the ear, or active purulent inflammation of the ear drum; for here we have not only to correct abnormal tension and mobility of the conducting mechanism, but to put a stop to an actively destructive and infective process,—the problem here being specially to establish free drainage, remove diseased products, quiet irritation, sustain and reinforce vitality and keep the infected parts clean and disinfected.* Where this cannot be accomplished by medicinal means, mechanical interference, preferably by surgical procedure, seems indispensable to effect the desired end; the details of the operation varying with the peculiar physical conditions met with in each individual case presenting. The general experience being that the procedure demanded most frequently is *the division of adhesions and new tissue and excision of the remains of the drum-head with the hammer and anvil bones, liberating the stirrup bone, since, in the majority of such cases of discharging ear, symptoms persist because of adhesions, or the presence of new tissue, suppuration continuing because of the involvement of the inaccessible spaces and pockets formed by these parts and the outer wall of the attic of the drum-cavity, done away with by this operation.*

In *catarrhal cases*, however, it is the *changes in the mucous membrane*, covering all parts of the *auditory conducting mechanism* in the ear drum, and *their physical consequences*, that most closely concern us; and, in fact, that these *progressive tissue changes*, attended with *gradual change of tension in the parts*, so affect *labyrinthine tension* as finally to disturb the function of the auditory nerve and, if neglected, *lead to loss of hearing in the ear of the opposite side as well*; for the auditory nerve center of each ear supplies branches to the opposite ear. Consequently, we are called upon, here, to consider the interests not only of the one ear, but also of its fellow of the opposite side; since it has been proved, by experience, that the hearing of the second ear may oftentimes be saved by measures which reduce the tension in the first ear, even where the latter may be in a condition admitting of little hope of our restoring its own original hearing. In short, the condition of tension demands consideration, as well as does that of mobility of the conducting mechanism.

Now, when these changes in the mucous membrane, and their physical consequences, have passed beyond the functional stage, and organic structural changes have been established, the problem of relief depends wholly upon the possibility of so acting upon these new physical conditions as to liberate the essential conducting mechanism of the ear. Where hygienic, medicinal and simple mechanical measures fail to effect this, surgical procedure may serve to release the conducting mechanism from its bonds—very limited encroachment only

upon the affected parts of the ear-drum, frequently, being all that is necessary to afford relief, particularly in those cases where the tissue changes have confined themselves to a small spot. In other cases, the changes will have involved so large a portion of the conducting mechanism that they cannot be liberated sufficiently to act, entire, as a conductor, normally; but must, when present, ever act as an obstacle to the passage, inwards and outwards, of sound-waves. In such cases, there is but one rational method of procedure; and that is, to liberate the deeper portion of the auditory conducting mechanism, still movable, from the permanently immobilized portion, without; making provision for free entrance of aerial sound-waves from without directly to the deeper, still movable portion and the labyrinthine nervous apparatus, within; while providing for the exit of sound-waves normally seeking exit through the tissues of the head and ear. The appropriate details of such surgical procedure are peculiar to each individual case, and are to be estimated and put into execution, modified in detail, step by step, as the surgical and anatomical conditions confronting the operator may indicate, throughout; the best guide being the judgment of the operator—it being assumed, of course, that the case is in the hands of one practically familiar with the surgical anatomy and the physiology of the ear, and thoroughly skilled in such difficult, deep, aural surgery. In my own experience, the form of operation most frequently indicated in the old hopeless cases, has been that affecting the removal

of the drum-head, hammer and anvil-bones—the stirrup-bone, also, being occasionally removed; and bands, synechia, septa, growths, etc., dealt with, as indicated, sufficiently to liberate and expose the more deeply lying auditory structures. This not only eliminates the defects of drainage by the natural route, in the cases of discharge from the ear; but in the “catarrhal” ones, so exposes the mucous membrane of the drum-cavity, that it undergoes a progressive skin-like or dermoid transformation, with disappearance of the mucous gland as such.

The beautifully constructed, delicate aural surgical instruments of the present day, together with the visual and manual dexterity of the expert specialist—essentials of perfect surgical technique—ensure rapid, accurate and thorough operation. Extreme care is today exercised, both during its performance and afterwards, to avoid any manipulation or procedure whatever that might, even in the least degree, tend to injure or irritate the remaining structures of the drum-cavity. Careful attention is today given to the diet and general condition of the patient. In short, every precaution is taken towards simplifying the operation of today, so far that secondary inflammation is unlooked for, and a reformation of membrane—the so-called “substitutive drum-head”—at the site of the normal drum-head, is exceptional. And even when such membrane actually does form, it is readily removable under local anesthesia, and is eventually disposed of thus, either with or without the application of traumaticin, containing a little sali-

cyclic acid, and by restricting the patient's diet for a variable period.

Three things are especially to be borne in mind in regard to this novel method of treating these hopeless cases of deafness and of discharge from the ear:

I.—As soon as it is evident that ordinary and time-worn methods are powerless to cure, this one should be resorted to—and without unnecessary delay—as neglect to remove the obstacle in the auditory conducting mechanism only keeps the more deeply lying parts the longer without exercise of their normal functions, affects the tension of the labyrinth, and in so far tends to impair them, as well as to involve the function of the opposite ear. For the sake of the other ear, even if there be hope of but slight benefit to the hearing of the first ear, this method should be employed.

II.—In all cases of obstinate discharge from the ear, from purulent inflammation of the drum-cavity, where treatment by ordinary methods has proved futile, whether or not the mastoid cells have already become involved, this procedure should be resorted to, inasmuch as it alone usually suffices to effect a cure—whereas, without this, even mastoid operation alone is at best an illogical, imperfect and hazardous resource, mentioned here only to be unqualifiedly condemned.

III.—Where inflammation of the drum-cavity has been attended by an immobilization of the outer portion of the auditory conducting mechanism, whether from fixation or from increased inertia, low-pitched sounds are the more difficult of transmission

to the auditory nerve. Likewise, sound waves generated within the patient's own head—whether by chewing, talking, singing, by the pulsation of the auditory or their neighboring blood vessels, or by the friction of the blood current upon the vessel walls—sound waves, generated thus within the patient's own head, normally seeking exit by transmission through the tissues of the head and ear, meet with obstruction on reaching the immobilized portion of the auditory conducting mechanism, and are reflected inward by it, thus agitating the more deeply lying and still movable parts of the conducting mechanism—giving the patient the same impression as if these sounds had come inwards from a point without, and beyond the movable portion, thus practically producing an echo in his own auditory conducting mechanism. Consequently, he is troubled with so-called “head noises,” “death bells,” etc. In this way, also, the sound of his own voice, especially, appears to him increased in force and volume by this echo in his auditory conducting mechanism, and impinges so strongly upon his auditory nerve as to deceive him as to the actual volume of his voice. He thereupon lowers the tone of his voice, always augmented by the echo in his ear, until it seems of normal volume, so far as he himself can determine. Consequently, he speaks habitually in an abnormally moderated or low tone of voice.

In a quiet place, such a patient usually hears worse. Whereas, when in a noisy place—as, for example, in a moving street car, or in a noisy machine shop—he will usually find that

he can, while there, hear speech and other sounds much better. This is because the constant noise shakes loose that portion of his auditory conducting mechanism that elsewhere is more immobilized by abnormal tension, and the transmission of other sounds to the deeper, still movable, and the perceptive parts of the ear is, in the noisy place, thus rendered more easy.

If, therefore, among hopeless cases of deafness—particularly if they be victims of so-called aural “catarrh”—you happen to meet one who speaks habitually in an abnormally moderated or low tone of voice, inquire whether or not he can hear better when in a noisy place. By the exercise of ordinary tact, any one can secure, without impertinence, information upon this point sufficient to arrive, off-hand, at some approximately correct conclusion as to the nature of the condition underlying the deafness, and whether or not it be such as might probably be relieved by this operation.

As an example of the information usually to be elicited upon this point, from such cases, I recall one where, when the street car was quietly stationary, the conversation of anyone sitting alongside was heard with difficulty by the patient; while, on the other hand, when the car was in motion, noisily, of course, the hearing was so acute that the conversation of couples sometimes as far as six seats distant was very readily heard—upon some occasions, the patient stated, where the character of the conversation was evidently such that the speakers would, consciously, certainly not have allowed it to be overheard

by others; and there actually were others seated between the patient and the speakers, even in the seat next in front of the speakers.

Remember, then, the test, which, in my introduction, was praised with such fervor, and which I would so earnestly urge you to apply and verify in your daily social intercourse and practice. It is this:

Whenever you meet any deaf person, especially if most deaf to low-pitched tones, who speaks habitually in an abnormally moderated or low tone of voice, yet who can hear better in a noise or noisy place—especially if he—or she—be a victim of chronic “middle-ear catarrh”—be confident that you have encountered a case of immobilization of the outer portion of the auditory conducting mechanism, probably susceptible of relief by tympanic resection, and seize the present opportunity to encourage such a one to submit himself for thorough technical examination, with a reasonable hope of prompt and permanent relief of his disability.

For my experience has been that *any very deaf person who speaks habitually in an abnormally moderated or low tone of voice, who hears better in a noise or noisy place—no matter how long he may already have been afflicted, and notwithstanding that every other remedial measure may have been tried in vain—may yet be relieved, proportionately to the distinctness of these symptoms, by resection of the auditory conducting mechanism.*

As an indication of what might be expected of this operation, I would remark that I have seen case after case, over and over, which had been afflicted with discharge from the ear

for a period, preceding the operation, of twenty, twenty-five, thirty, thirty-five and nearly forty years, promptly and permanently relieved by this method. I recall a case of so-called “catarrh” in which one ear had been wholly “out of use” for about twenty years before the rapid, almost total loss of hearing on the other side; in this case the operation afforded relief to the long abandoned ear at once, and to such a degree that it, exclusively, has since been used, and satisfactorily depended upon, by the patient for telephone communication and in his social and commercial intercourse.

In another case of marked deafness, where, the patient stated, “that for ten years, he was at times so dizzy that he had no rest, day or night,” entire relief of this symptom was afforded by the operation; and his hearing was so far restored, that he can hear every ordinary sound satisfactorily—for instance, the tick of a clock in his room, which, before operation, he could not hear, unless close to his ear, he can now hear plainly from across the room, even when lying down.

Another patient, who claimed to have had his ear affliction for about thirty years, with ringing noises in his head and ear, and dizziness so severe, at times, as to compel his clinging to something fixed for support, and who stated, that, to the best of his recollection, “he had never been able to hear a sound of any kind from his affected ear”—this patient was relieved at once by the operation, and can “hear plainly,” can also “hear as well as anyone through a telephone,” and can “even hear a

whisper, or a watch tick, in the ear operated upon."

In one case recently operated upon, the hearing upon the opposite side was so markedly improved by the operation upon the worse ear, that, within four hours afterwards, the tick of a watch was heard, which had previously been inaudible for about six months.

In other cases of this character, where the deafness, dizziness and head noises had persisted for from twenty to thirty-three years or longer, I have seen radical relief afforded from the subjective symptoms, and entirely satisfactory hearing restored, not only for ordinary conversation, music, telephony, etc., but made reliable for long distances—twenty-five feet or more—as, in one case, where, before operation, shouting voice only at several feet distance, was all that could be heard.

It would be useless, here, further to enumerate details or multiply illustrations. If such are desired, I should be pleased to furnish them, upon request, in reports of cases, made before representative medical societies.

I am well aware that there are otologists who appear to have given up the operation on the middle-ear structures in chronic deafness from "catarrh," disappointed in their results. Without presuming to speculate upon the reasons for their misfortune, I can only regret, that their practical experience has not proved as

encouraging as my own. A moment's reflection, however, will serve to show how irrational it is to condemn a potent agent, such as this, as harmful or useless, simply because of results, however lamentable or disappointing in themselves, arising from the indiscriminate or inappropriate employment of such agent. Particularly, since propriety and reason affirm of this, as of every other resource, whatsoever, that its value lies, not only in its application, but in its proper application. And where, occasionally, we meet with marked instances of the undoubtedly advantageous application of a remedy, obviously so beneficent as this one, failure or disappointment should but strengthen our determination to perfect the search for the exact indications for its employment.

These, as far as known, I have tried to state, and to explain to you.

In conclusion, I would modestly express the hope, that this paper may serve to direct the attention of some sympathetic hearer—one more professional brother, to the resection of the auditory conducting mechanism, as a method of radical relief for hopeless cases of deafness and discharge from the ear—whose merits certainly entitle it to more careful consideration than it appears hitherto to have been shown by the medical profession generally. And I thank you for your kind attention.

3894 Washington Boulevard.

— JOURNAL —

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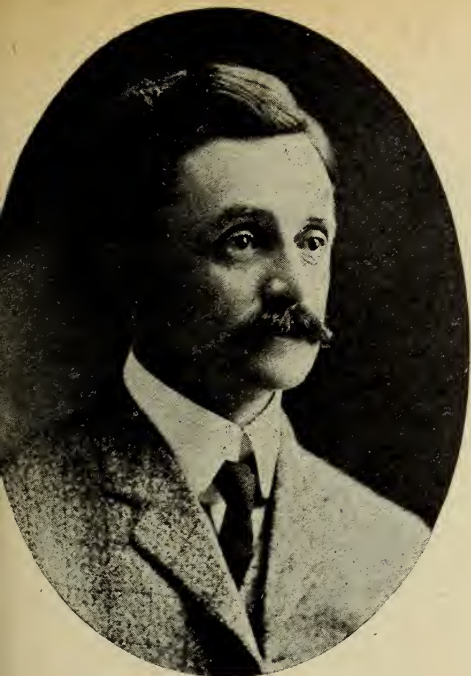
EDITORIAL.

JUDICIAL COUNCIL.

During the developmental stage of the Missouri State Medical Association no officials are of greater importance than members of the Judicial Council, half-tones of whom may be found in this issue. The state has been divided into sixteen districts. This division refers neither to the political nor geographical districts,

but to sixteen groups of counties arranged with reference to accessibility. Over each of these a councillor presides, and upon him devolves the duty of organizing and maintaining organization in each of the counties.

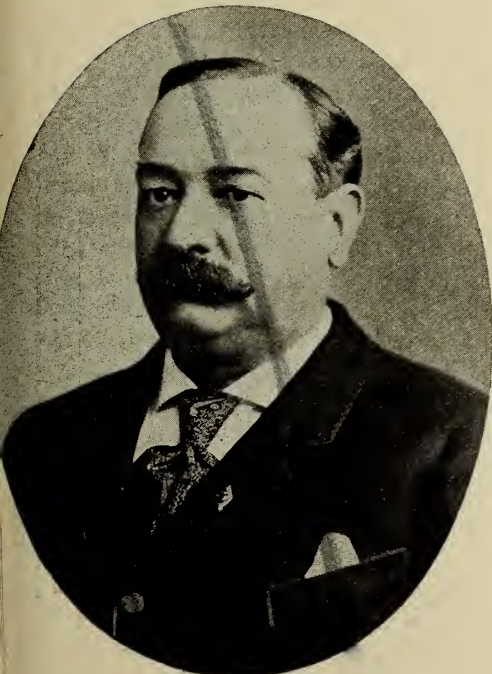
The gentlemen have accomplished during the past six months eight times more than during the corre-



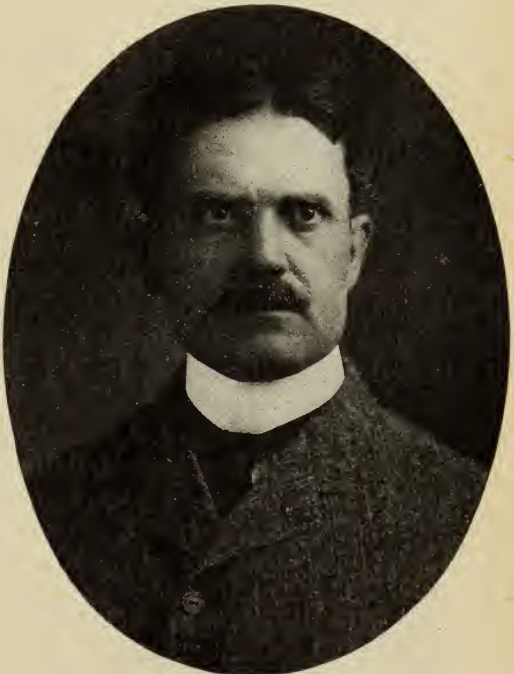
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DR. J. B. BRUMMALL, Salisbury.
Councillor Second District.



DR. E. H. MILLER, Fayetteville.
Councillor Third District.



DR. C. H. WALLACE, St. Joseph.
Councillor Fourth District.

sponding months of last year, and at this time ten new counties are about to be organized. The total membership of the State Association is 1,520, and with the counties to be organized during the next three weeks will be over 1,700. With the total of sixty-three counties organized and a membership of 1,520 the councillors are to be congratulated. Much work is yet to be done, as is shown by the following table, giving the unorganized counties in each councillor's district:

First District.—Dr. F. B. Hiller. Counties: Adair, Knox, Lewis.

Second District.—Dr. J. B. Brumhall. Solidly organized.

Third District.—Dr. E. H. Miller. Counties: Clinton, DeKalk, Gentry, Harrison, Worth.

Fourth District.—Dr. C. H. Wallace. County: Andrew.

Fifth District.—Dr. L. W. Dallas. Solidly organized.

Sixth District.—Dr. Woodson Moss. Counties: Montgomery, Warren, Pike.

Seventh District.—Dr. W. B. Dorsett. Counties: St. Charles, Lincoln.

Eighth District.—Dr. F. J. Lutz. Counties: Franklin, Gasconade.

Ninth District.—Dr. B. M. Hypes. Counties: St. Genevieve, Cape Girardeau, Perry.

Tenth District.—Dr. J. J. Norwine. Counties: Scott, New Madrid, Bollinger, Dunklin, Center, Ripley, Jefferson, Washington, Francois.

Eleventh District.—Dr. W. S. Allee. County: Osage.

Twelfth District.—Dr. R. D. Haire. Counties: Lafayette, Benton.

Thirteenth District.—Dr. M. P. Overholser. Solidly organized.

Fourteenth District.—Dr. A. R.

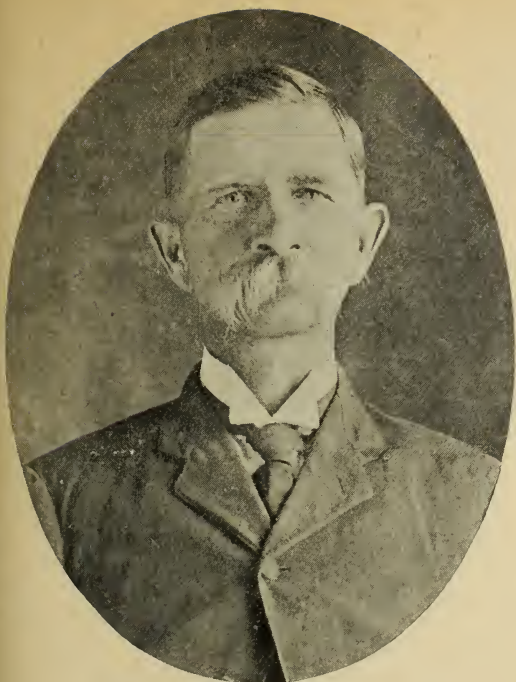
Snyder. Counties: Barry, Lawrence, Dade, Barton, Cedar, Vernon.

Fifteenth District.—Counties: Hickory, Stone, Taney Greene, Christian, Dallas, Polk.

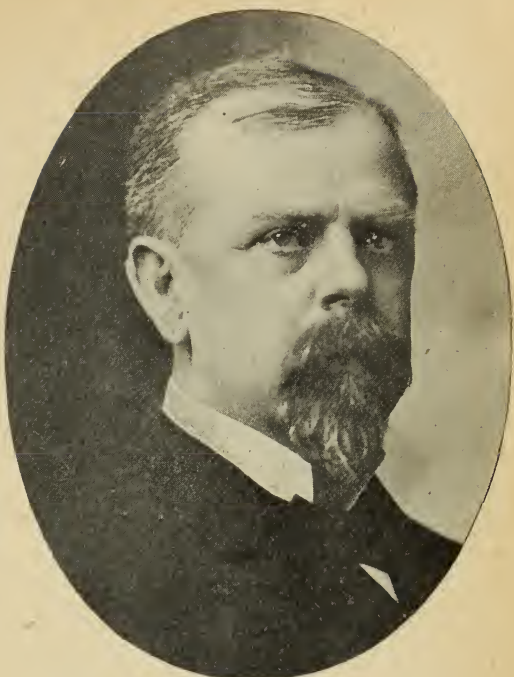
Sixteenth District.—Dr. R. L. Johnson. Counties: Pulaski, Webster, Ozark, Dent, Texas, Wright, Douglas, Oregon.

When the above fifty-four counties have been fully organized the medical profession in Missouri will be in position to dictate legislation.

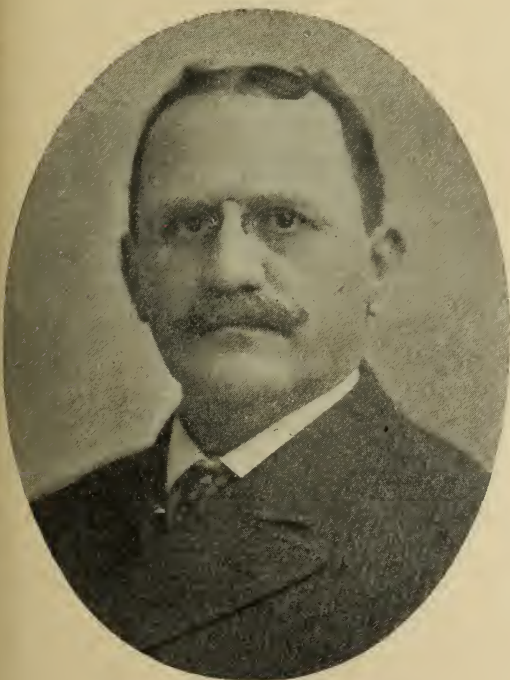
At the last annual meeting the council decided to publish the transactions of the association in journal form instead of the bound volume, and as a result the work of organization has been much simplified. Heretofore many members of the profession living in remote districts inaccessible to the meeting place have felt there was comparatively little to be gained by membership in the State Association, but since the advent of the *Journal*, in which they receive not only the transactions of the State Association but articles or abstracts of articles from the pens of the best known men in the medical world, they realize that something is received in return for the dues they are expected to pay. Never has the medical profession of Missouri been so nearly organized as today. Never have the State Association and county societies been in so healthy a condition as today. As soon as the *Journal* is self supporting it seems probable Missouri will follow the lead of other states and protect members in cases of malpractice suits. Then we may expect every physician in the state who is eligible to become a part of the State Association, when our



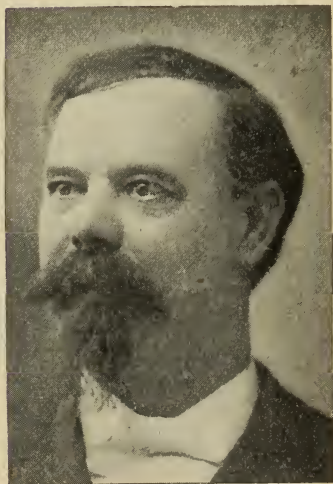
DR. L. W. DALLAS, Hunnewell.
Councillor Fifth District.



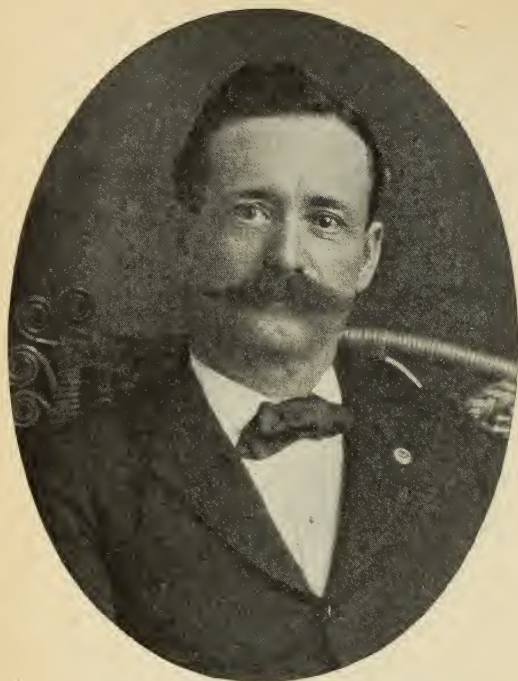
DR. WOODSON MOSS, Columbia.
Councillor Sixth District.



DR. W. B. DORSETT, St. Louis.
Councillor Seventh District.



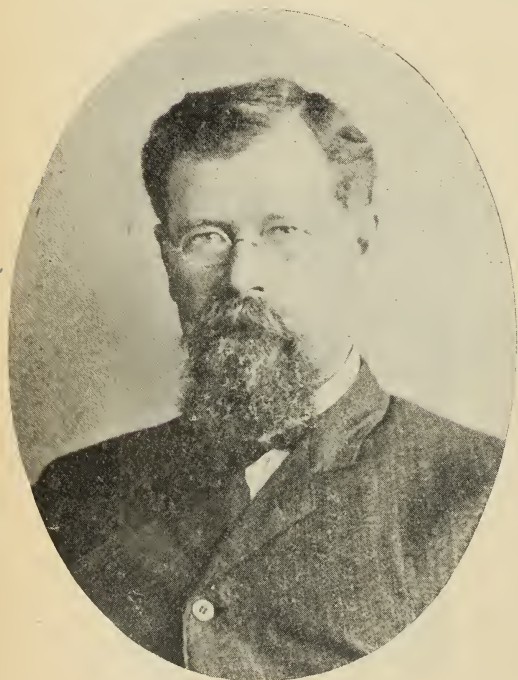
DR. B. M. HYPES, St. Louis.
Councillor Ninth District.



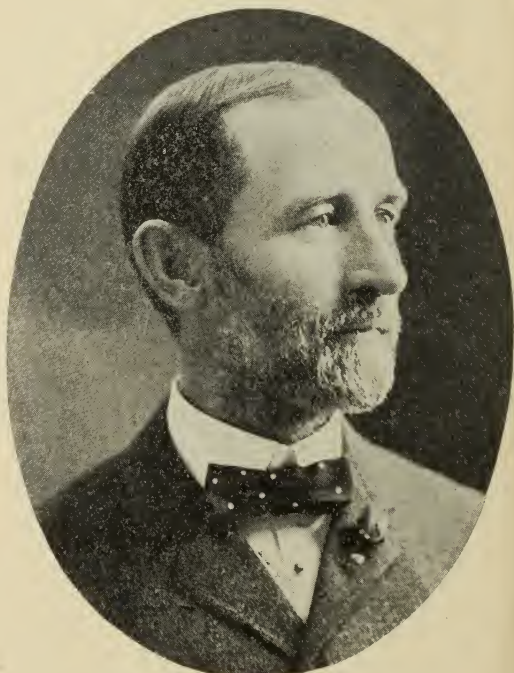
DR. J. J. NORWINE, Poplar Bluff.
Councillor Tenth District.



DR. I. A. MARSHALL, Ironton.
Assistant Councillor Tenth District.



DR. W. S. ALLEE, Olean.
Councillor Eleventh District.

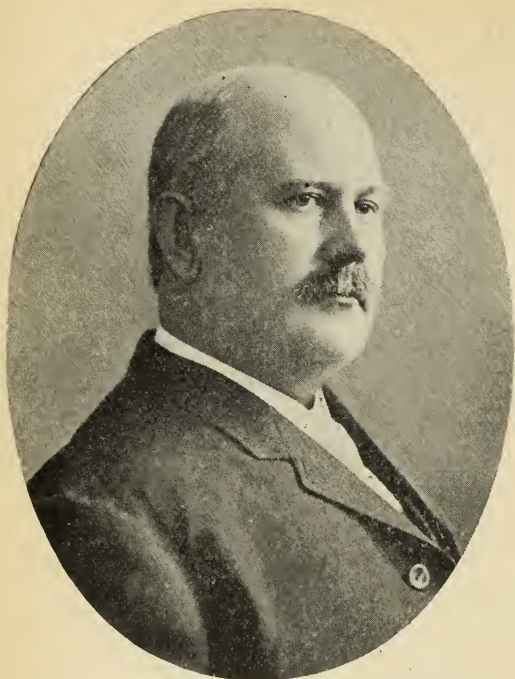


DR. R. D. HAIRE, Clinton.
Councillor Twelfth District.

membership should reach 5,000. The following new members have been added since the last annual meeting:

E. A. Lyle, Butler.
 E. G. Zey, Butler.
 R. F. Hulett, Rich Hill.
 Ross Grosshart, Rockville.
 E. N. Chastain, Rich Hill.
 V. J. Cumpton, Pleasant Gap.
 G. A. Delameter, Rich Hill.
 C. B. McNarry, Rockville.
 W. H. Knott, Hume.
 H. W. Lancaster, Rich Hill.
 H. A. Rhoades, Foster.
 W. H. Allen, Rich Hill.
 J. S. Amyx, Amsterdam.
 F. R. Atkins, Greenville.
 W. S. Bailey, Leeper.
 I. N. Barnett, Piedmont.
 G. W. Toney, Piedmont.
 J. E. Gilmer, Piedmont.
 J. L. McGhee, Williamsville.
 J. M. Montgomery, Lowndes.
 R. J. Owens, Mill Spring.
 J. P. Sebastain, Patterson.
 C. C. Sheets, Greenville.
 L. M. Pettit, Greenville.
 J. Q. Adams, Bellview.
 C. L. Blanks, Pilot Knob.
 David Clarkson, Annapolis.
 R. W. Gay, Ironton.
 C. C. Kerlagon, Bellview.
 Ira A. Marshall, Ironton.
 E. L. Barnhouse, Ironton.
 C. A. Anthony, Fredericktown.
 E. P. Cozzens, Fredericktown.
 C. U. Davis, Fredericktown.
 G. L. Dines, Mine Lamothe.
 G. W. Greenwood, Fredericktown.
 O. Haley, Fredericktown.
 J. H. Renfroe, Fredericktown.
 J. T. Coffee, Steelville.
 Walter S. Cox, Cuba.
 Wm. J. Bamber, Wilson Mills.
 W. A. Metcalf, Steelville.

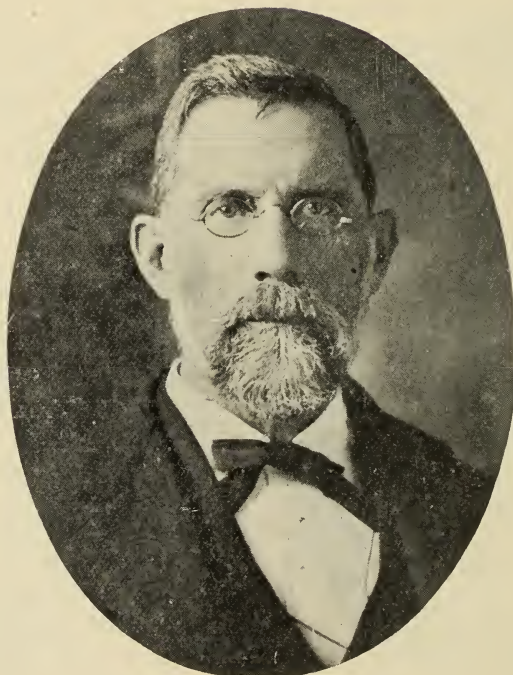
Clarence Metlock, Steelville.
 A. H. Horn, Steelville.
 C. C. A. Herzog, Cuba.
 T. B. Turnbaugh, Bloomfield.
 T. B. Wingo, Dexter.
 D. R. Corbin, Bloomfield.
 S. H. Evans, Bloomfield.
 T. C. Allen, Bernie.
 H. S. Winters, Acorn Ridge.
 A. D. Hill, Dexter.
 Elden Phillips, Bloomfield.
 L. S. Mayfield, Puxico.
 L. Burris, Puxico.
 J. H. Bilbrey, Puxico.
 J. P. Brandon, Essex.
 W. C. Caldwell, Essex.
 John Ashley, Bloomfield.
 J. A. Tiller, Leora.
 E. A. P. Briney, Bloomfield.
 G. W. Vernon, Dexter.
 J. D. Moulder, Puxico.
 Harry La Rue, Dexter.
 — Slayden, Dexter.
 A. R. A. Davis, Bloomfield.
 John H. Douglas, Dexter.
 R. L. Evans, Boonville.
 R. S. Holman, Boonville.
 P. L. Hurt, Boonville.
 Jerome D. Potts, Boonville.
 F. R. Smiley, Boonville.
 F. G. Dinwiddie, Camden Point.
 H. I. Owen, Fulton.
 E. E. Brunner, Fulton.
 J. W. Berry, Reform.
 Eli Wilson, Leora.
 B. J. Cline, Ardeola.
 M. S. Winters, Asherville.
 Wm. J. Chandler, South Orange,
 N. J.
 W. A. Berry, Unionville.
 Ida M. Nulton, Livonia.
 Geo. W. Tremaine, Tavern.
 Roy Whaley, Browning.
 D. L. Whaley, Browning.
 T. J. Downing, New London.



DR. M. P. OVERHOLSER, Harrisonville.
Councillor Thirteenth District.



DR. A. R. SNYDER, Joplin.
Councillor Fourteenth District.



DR. R. L. JOHNSON, Rolla.
Councillor Sixteenth District.

M. H. Rhoads, Austin.
 Jno. B. Brierly, Gum City.
 Martin Dalton, Fenton.
 John R. Lionberger, Boonville.
 O. B. Hicklin, New London.
 W. G. Hendrix, New London.
 S. Ragan, New London.
 Wm. Wates, New London.
 Wm. Birney, Oakwood.
 W. S. Harwood, Rensselaer.
 Chas. H. Graves, Center.
 R. W. McCullum, Center.
 F. M. Wicks, Center.
 R. E. Suter, Perry.
 F. Walters, Perry.
 R. M. Winn, Saverton.
 G. M. Bristow, Princeton.
 Chas. R. Buren, Princeton.
 H. P. Chesmore, Princeton.
 C. C. Copeland, Mill Grove.
 I. L. Davis, Granger.
 John E. Parrish, Memphis.
 A. H. Mackey, Gorin.
 L. M. Coffey, Hitt.

THE COUNTY SOCIETIES.

Upon the organization and perpetuation of a county society in all or nearly all the counties of the state rests the standing of our profession at home and abroad. We are succeeding reasonably well. Out of the one hundred and fifteen counties in the state we have about sixty-five county societies. There are a few counties in which it will be years before we can hope to have any organization. I have had some little experience in helping to organize some of the societies. As a rule it is not very difficult to get a sufficient number of physicians together to organize a society. The vital question is, how to make them of the highest value and interest to their members.

I confess that I cannot answer this question. I feel some plan must be adopted which will demonstrate to the public that the member of a medical society is of greater value and service to them than the man on the outside. Whenever the public shall begin to ask if a physician is a member of a society before they engage him as their family physician, then the sailing will be more sure. The railroads and other corporations are beginning to ask this question of those applying for positions with them. Whenever an outsider wants an endorsement for some position, he invariably goes to a member of some society for his endorsements. If the same party is sued for malpractice he flees at once to the members of the medical society as his house of refuge. Should this protection be extended to a man who persistently ignores the medical organization? But what can we do for the men who want societies and are now members of such organization? I was present last week at a newly organized society, and there was a goodly attendance of good men, and the question upon every lip was: What can we do to make the society draw and live? We are up against this question in our own county, and we are by no means over-sanguine of success. Our plan is to meet once a month in different parts of our county. A certain number of the society most conveniently located make it their duty to be present. The sessions are, as far as possible, clinical. The regular profession of that section are requested to bring as many cases before the society as they can get to come, each case being accompanied with a written clinical history, this his-

tory to be filed with the secretary of the society. Frequently there is a social feature in the way of a dinner, which adds greatly to the ties that bind us. We are now considering the advisability of occasional joint meetings of contiguous county societies. I think it would be profitable to have in our journal occasional short articles by men who are actually engaged in this work in the counties of the state. I have no doubt some one has a better plan than ours, and we want to get hold of it. Brethren, let your light shine through the columns of *your* journal.

WOODSON MOSS.

THE MICROCHEMICAL PROPERTIES OF BLOOD CELLS.

Normally the protoplasm of a red blood corpuscle is of a basic or alkaline reaction, and, therefore, has a normal fixed affinity for acid stains. A normal red corpuscle will, therefore, take the acid stains, eosin, acid fuchsin, orange G, &c. Because of this normal selective affinity of the red corpuscle for acid stains it is called an acidophile. By reason of the fact, also, that a normal red corpuscle has no affinity either for basic or neutral stains, but only for acid stains, its staining properties are said to be monochromatophilic, and for this reason it is called a monochromatophil.

In using Ehrlich's tri-acid mixture in the study of the microchemical properties of blood cells we find in some abnormal red corpuscles that parts of the protoplasm of the corpuscle may take the basic stain and are colored blue, other parts the neutral stain and are colored purple, and others the acid stain and are colored

orange, while still other parts may select no stain whatever, remaining colorless. Such abnormal red corpuscles are said to be polychromatic in their staining properties, and are called polychromatophiles. In some conditions of the system this polychromatic staining of the red corpuscles is found to consist of a number of blue basic granules in a background of a normal orange-colored red corpuscle. These granular basophilia are an evidence of small areas of degeneration disseminated throughout the protoplasm of the red corpuscle, and the condition is frequently spoken of as the punctate basic degeneration of the erythrocytes. It is found in the high grades of anæmia, especially in the blood of patients suffering from lead poisoning.

Abnormal red corpuscles which stain with a basic nucleus, are called blasts, as microblasts, normoblasts, and megaloblasts, depending upon the size of the nucleated corpuscles. These blastic corpuscles are found in grave anæmias, especially in pernicious anæmia.

In the study of the microchemical properties of the normal white blood corpuscles we find that the single nucleated leucocytes take nothing but the basic part of Ehrlich's tri-acid mixture, and are, therefore, colored blue. The protoplasm of the nucleus, however, is more markedly basic than any other part of the corpuscle, and is, therefore, stained a deeper blue than the rim of protoplasm which surrounds it. As there are no granules found in the protoplasm which surrounds the nucleus of these corpuscles, they are called non-granular leucocytes. Both the small mononu-

clear and the large mononuclear leucocytes of the blood are found by a study of their microchemical properties to be non-granular basophiles.

By staining the polynuclear leucocyte we find that its various parts have a normal affinity for most all of the stains contained in Ehrlich's triacid mixture. The nuclei take the basic stain and are colored blue, the granules take the neutral stain and are colored purple, while the protoplasm surrounding the granules may partake slightly of the acid stain. By reason of the fact that the granules found in the protoplasm surrounding the nucleus take the neutral stain, they are called neutrophiles. The polynuclear white corpuscles of the blood are, therefore, frequently called the granular neutrophilic leucocytes, or simply the neutrophiles. The small percentage of polynuclear leucocytes of the blood which contain granules, having a great affinity for the acid stain eosin, are called eosinophilic leucocytes.

Abnormal leucocytes of the blood are those which have only one nucleus and contain granules which are either neutrophilic, acidophilic, or basophilic, or several of these varieties of granules may be found in the same leucocyte. These abnormal corpuscles are called myelocytes. Thus we can have the neutrophilic myelocyte, the acidophilic or eosinophilic myelocyte, and the mixed myelocyte. The presence of the myelocyte is characteristic of the disease spleno-myelogenous leukemia. In this blood disease it is the neutrophilic myelocyte, which is usually the most abundant.

Thus, by means of stains scientifically applied to properly prepared

blood films and the use of the microscope, we can observe and study what are called the microchemical properties of blood cells. Abnormal microchemical properties of the cells of the blood, as revealed by these methods of examination, are frequently of the greatest diagnostic import.

M. P. O.

ATTENTION TO DETAIL.

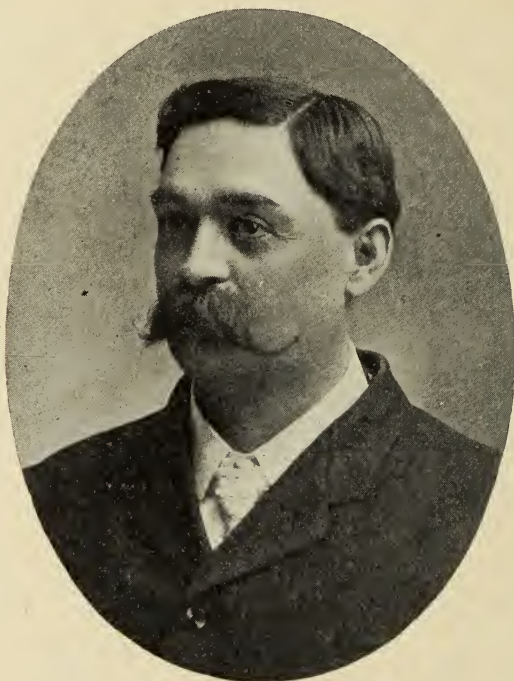
In the routine work of physicians the small elements which exist in a given case are neither sufficiently appreciated nor made use of as they should be, especially as regards diagnosis, prognosis and treatment. The habit of superficiality is easily acquired as one's practice increases in size, but it is often the result of improper training in the medical college. The greatest men in the profession are those who are endowed with the faculty of investigating beneath the surface. Osler's great skill as a teacher and diagnostician depends as much as anything upon his ability to dig out the minor points in a case, put them together in one great whole, and thus obtain a clear clinical practice. A disabled piece of machinery often receives a more critical going-over than many of the sickest patients. Attention to detail is all-important in surgical work. Epidemics of wound infliction occur occasionally in the best managed hospitals, and it is frequently difficult to find the cause. However, these infections can usually be traced to ignorance on the part of new nurses, of the numerous details which should be observed in acquiring perfect asepsis. There is nothing in the science of medicine so small that it may safely be over-

looked. The faculty of observing in medicine should be more fully developed. and of making use of the little things L. A. T.

OBITUARY.

George Newton Lantz, M. D., president of Linn County Medical Society, died at his home in Brookfield September 2d. Dr. Lantz graduated from the medical department of the University of Louisville in 1890,

Executive Council. He never missed a meeting of the association until, in June of the present year, his health became so poor he was unable to attend. He was at one time secretary of the Grand River Medical Society,



GEORGE NEWTON LANTZ.

since which time he has practiced in Brookfield. He was a charter member of the North Missouri Medical Association and for several years secretary of that organization. Up to June, 1904, he was a member of the

and later, president. Few have taken more active interest in or worked harder for the good of medical organization. Dr. Lantz was a member of the American Medical Association.

NEWS ITEMS.

New Orleans is to be the site of a hospital built by the United States government for Panama canal patients.

Capt. Salvatore Pizzati, New Orleans, has given \$250,000 as the nucleus of a fund for the establishment of a hospital for Italians in New Orleans.

In New York City a novel step has been taken in the combating of tuberculosis. It is endeavored to enlist the school children, numbering one-half million, in the anti-spitting crusade. As an educative measure it is a good one, and will undoubtedly be conducive of good in more ways than one.

The St. Joseph's Orphan Society, a charitable organization of Jefferson City, has given all its assets, amounting to \$2,298, to the new hospital of the Sisters of St. Mary, now being erected at Jefferson City, at a cost of \$75,000.

Sorrentino says that the almost constant enlargement of the organ during the first part of the second stage of syphilis, may serve as a means of diagnosis when other symptoms are lacking. Morfan considers syphilis to be the chief cause of enlargement of the spleen in infancy, even more than in rickets. He had found it in about 50 per cent. of cases of congenital syphilis. Carpenter considers syphilis comes next to rickets as a cause of splenomegaly.

New statutes, just issued in Russia, place women doctors on practically the same footing, both with regard to education and practice, as their male rivals. Women may now obtain diplomas, pursuing their studies for medical degrees in the universities of the country and in the Military Medical Academy. But the law restricts Jewish students to 3 per cent.

At the conclusion of the regular meeting of the board of health, Commissioner Darlington announced on September 7th that the following amendment had been made to the sanitary code, to be known as section 66a: "No phenol, commonly known as carbolic acid, shall be sold at retail by any person in the city of New York, except on a prescription of a physician, when in a stronger solution than 5 per cent."

Wm. H. Arthur, as a result of his experience at the Soldiers' Home, tells us that old men are much better surgical subjects than is usually supposed. He operated on twenty-two patients, averaging seventy years of age, with recovery in all except one, a hopeless case of gangrene. We need not hesitate to operate on old men, he holds, for their chances of recovery are fairly good. The administration of anæsthetics to 586 old men, operated on in fourteen years, without any death, shows that the aged can take ether well.

Specifications for fire escapes, standpipes and safety elevators for

the proposed addition to Mercy Hospital, Denver, are being prepared. According to the new ordinance passed after the Iroquois Theatre disaster in Chicago, the plans for all new hospitals must be submitted to the building inspector for determination of the facilities for fighting fires and removing helpless patients to places of safety. At least two specially constructed hospital stairways or elevators will be required at opposite ends of the structure, which is to be from four to five stories in height. There will be three or four large standpipes and a number of ordinary fire escapes.

It is becoming apparent that typhoid fever is spread from person to person by diverse and more direct routes than by infected water and milk.

One of the means by which typhoid fever may be spread is that of the human skin. Wigura found upon the hands of hospital attendants in the typhoid wards, bacillus coli and bacillus typhi. C. E. A. Winslow, of the Massachusetts Institute of Technology, recently examined the hands of a number of persons, including employes of the Institute and pupils of one of the schools of Boston, and reports finding the bacillus coli upon the hands of ten out of one hundred and eleven persons examined. These results indicate how readily the typhoid bacillus may be transmitted by the hands of those affected with the disease or of their non-professional attendants.

The idea is prevalent that marriages between persons too closely related results in progeny feeble in mind and body; but the facts do not always

seem to bear out this theory. The first restrictions of marriages between persons within certain degrees of consanguinity, seem to have been made by Moses. Abraham married his half-sister, while his brother Nahor wedded a niece; Jacob married two sisters, Rachel and Leah, who were his cousins; Esau also married a cousin, while Judah took as his wife the widow of his own son; and Moses' father, Amram, married Jochebed, a paternal aunt.

Among the ancients, many of those noted for their physical and mental attainments, were the offspring of consanguineous marriages. Cleopatra, for instance, the most beautiful and fascinating of sovereigns, was the daughter of a brother and sister, and a great-great granddaughter of Bernice, who married a man who was her half-brother as well as her husband. Cleopatra married a younger brother.

There are certain facts connected with bichloride of mercury as an antiseptic, which, while commonplace, are often forgotten; some of them are here noted. It is very corrosive upon all metals and incompatible with all alkalies and alkaline earths, while the salt in watery solution has a restraining action upon the bacteria in as small a proportion as 1.50000. In contact with blood, pus, sputum or albuminous substances, this power is greatly reduced. In strengths of 1.1000 non-spore bearing bacteria are killed by mercuric chloride in less than a minute, but anthrax and some other spore bearing forms survive for an hour or more. The staphylococcus pyogenes (found in abscesses and on

the skin), although non-spore bearing, is very resistant against solutions of corrosive sublimate.

Common salt lowers the germicidal power of bichloride of mercury; so likewise does alcohol. Bichloride of mercury has no antiseptic power when mixed with oil. Solutions of bichloride of mercury should always be made up with soft water (distilled preferred).

In "Russky Vrach" is related the case of a woman, who, to support her uterus, introduced into her vagina a croquet ball. The improvement obtained by this support was so great that she left it in place for thirty years! Finally, on account of the irritation it produced, it became necessary to remove the ball, and the extraction of it was a good deal more difficult than the insertion.

The Norwegian authorities, who do not make light of the subject of alcoholism, have conceived an original method of curing drunkards of their vice. The "patient" is placed in a room, which he is forbidden to leave, and all outside communication is cut off. When he is once under lock and key, his nourishment consists in great part of bread soaked in port wine. The first day the drunkard eats his food with pleasure, and even on the second day he enjoys it. On the third day he finds that it is always about the same thing, and on the fourth day becomes impatient, and at the end of eight days he received the wine with horror. It seems that the disgust persists and that this homœopathic cure gives unexpected results.

According to the South Carolina newspapers, they are taking effective action regarding certain "patent medicines" that it might be well for other states to follow. Probably it is because South Carolina, through its dispensary law, controls the sale of alcoholic liquors that it is able to do what it seems to be doing. One paper speaks of drug stores being prohibited from selling peruna on account of the alcohol it contains, and that hereafter it can be had only on the prescription of a physician. Another shows that it is not only peruna that is barred, but Hostetter's Bitters, DeWitt's Stomach Bitters, and some others less known because less advertised. According to the state chemist's analysis, Hostetter's Bitters contains 41.3 per cent., DeWitt's Stomach Bitters 37.6 per cent., and Peruna 26 per cent. of alcohol, and consequently are to be classified as intoxicants.

Among the noted medical men from abroad who were speakers at the International Congress of Arts and Science at St. Louis may be mentioned Dr. Ronald Ross, Liverpool; Dr. Shibasaburo Kitasato, Tokio, Japan, and Dr. Theodore Escherich, Vienna. Dr. Ross, the great authority on malaria, will visit Panama and Jamaica before returning to Europe.

At the thirtieth annual meeting of the Mississippi Valley Medical Association, held at Cincinnati, O., October 11-13, the following officers were elected:

President—Bransford Lewis, M. D., St. Louis.

First Vice-President—Frank Parsons Norbury, M. D., Jacksonville, Illinois.

Second Vice-President—J. H. Carstens, M. D., Detroit, Michigan.

Secretary—Henry Enos Tuley, M. D., Louisville, Kentucky.

Assistant Secretary—John F. Barnhill, M. D., Indianapolis, Indiana.

Treasurer—S. C. Stanton, M. D., Chicago, Illinois.

Next place of meeting, Indianapolis, Indiana, October, 1905.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

SEVENTEENTH ANNUAL MEETING HELD
AT ST. LOUIS, SEPT. 13-16, 1904.

Under the presidency of Dr. Walter B. Dorsett, St. Louis.

Addresses of welcome were delivered on behalf of the St. Louis Obstetrical and Gynecological Society by Dr. Louis E. Newman, and on behalf of the city and the Exposition,

by David R. Francis, president of the Louisiana Purchase Exposition. The responses to these addresses of welcome were made by Dr. L. H. Dunning, Indianapolis, and Dr. Herman E. Hayd, Buffalo, New York. The meeting was very well attended. The papers were of a high scientific character, and the discussions on them full and spirited. The association held only one session a day, in the morning, thus giving the members and their guests an opportunity to visit the Exposition in the afternoons and evenings.

Officers for the Ensuing Year.—The following officers were elected for the ensuing year: President, Dr. H. W. Longyear, Detroit; Vice-Presidents, Dr. D. Tod Gilliam, Columbus, Ohio, and Dr. John Young Brown, St. Louis; Secretary, Dr. William Warren Potter, Buffalo, New York (re-elected); Treasurer, Dr. X. O. Werder, Pittsburg (re-elected).

The association will meet in New York city in 1905.

ABSTRACTS.

Reed Memorial.—The sanitarians who are to clean up Panama have sailed for Colon, and within a year, it is expected, the isthmus will be fit for Americans to live in. Here again, as in Havana, when we undertook similar work, the scourge especially to be conquered is yellow fever, but in the five years since the United States assumed the temporary care of Cuba our health authorities have found the means of destroying this dreadful disease, and what was

thought an impossibility before the Spanish war is now only a matter of comparatively little time. It is particularly fitting, then, that efforts should be making now to raise an appropriate memorial to the late Dr. Walter Reed, who, major and surgeon in the United States army, sent to Cuba as chairman of a board of experts to study yellow fever, demonstrated the methods by which the pestilence can be controled. Dr. Reed died in Washington in Novem-

ber, 1902, having just completed the most remarkable and startling series of experiments in the annals of American Medicine. By proving beyond question the previously supposititious theory that the fever was conveyed from one person to another in the same way as malaria germs were spread, and showing that the only measure of protection necessary was the complete isolation of an infected patient by means of mosquito netting, he made a discovery to be compared with inoculation, perhaps to supplant and supersede that ancient practice of Turkish origin. The physicians at the recent meeting of the American Medical Association in Atlantic City subscribed \$8,000 of the \$25,000 desired for the statue of Dr. Reed it is proposed to erect in the capital, and the remaining \$17,000 should be not slowly forthcoming when the purpose for which it is desired becomes more widely known.—*Boston Transcript*.

Diet List for Constipation.—Plain diet in the usual manner, eating the usual quantity of foods presented and using the variety allowed in the list.

Breakfast.—Cereal with cream, preferably cornmeal or rye and oats; two soft-boiled or scrambled eggs; bread, preferably black bread or pumpernickel, or rye bread with much butter; fruit, apples or grapes.

Dinner.—Soup, preferably vegetable soup; fish or meat or both, with salad; vegetables, at least two kinds, preferably spinach, cabbage, beets, turnips, potatoes, beans or peas, if desired; dessert of rice or bread pudding or custard, including daily a saucer of prunes.

Supper.—Bread and butter; cocoa; cold meat and vegetable salad; dessert of stewed fruit, apples or pears or figs; if necessary include a saucer of prunes.

Drink at least three pints of water daily.—*Practical Medicine Series*, May, 1904.

Koch Still Adheres to His Theory.—

According to recent reports, Professor Koch is not at all disturbed by the decision reached by the British Royal Commission on the subject of bovine and human tuberculosis. When this was published he was absent from Berlin, but on his return he said that he saw no reason for modifying his views, and declared again emphatically his conviction that the transmission of bovine tuberculosis to man cannot take place by means of food. Neither bovine flesh nor milk, he asserts, can transfer the disease. It is possible for a butcher at the slaughter house to become infected by injuring himself when handling tuberculous meat, but even then the infection remains local. It causes a local sore, but no general disease. The report of the royal commission, Professor Koch says, does not contain a single fact to make him change his opinion, which is based on very careful experiments, not only by himself, but by other medical men of the highest standing. It is for his opponents, he says, to prove that he is wrong. He has tried for years to find a case in which tuberculosis was transferred from animals to men. Three years ago the Prussian minister for public instruction, at his request, instructed all physicians in charge of the large public hospitals

to report all cases which came to their notice of bovine tuberculosis transmitted to man, and up to this day he is waiting to hear of the first case. "Veterinary surgeons say that five per cent. of all cows have bovine tuberculosis, yet the royal commission," says Professor Koch, "cannot state a case of a man being infected by drinking the milk of such cows. How many millions are wasted by the killing of animals, the flesh of which is said to be dangerous, and for the sterilization and pasteurization of milk, which loses many of its good qualities in the process? If all these millions were spent on really practical means for combating tuberculosis, one might get the mastery over it." — *The Cincinnati Lancet Clinic*.

International Congress of Medicine.—

We have received the first number of the *Journal of the Fifteenth International Congress of Medicine*, that will take place in Lisbon on the 19th-26th of April, 1906. This number contains the statute of the congress, the organization of the sections and of the national committees of the different nations. One must remark in the statute the second article, that only admits in the congress, beyond the doctors, the scientific men presented by the national or Portuguese committees. The contribution is of 25 francs or 20 marks or £1. The work of the congress is distributed in seventeen sections: 1. Anatomy (descriptive and compared anatomy, anthropology, embryology, histology). 2. Physiology. 3. General pathology, bac-

teriology and pathological anatomy. 4. Therapie and pharmacology. 5. Medicine. 6. Pediatrics. 7. Neurology, psychiatry and criminal anthropology. 8. Dermatology and syphilography. 9. Surgery. 10. Medicine and surgery of the urinary organs. 11. Ophthalmology. 12. Laryngology, rhinology and stomatology. 13. Obstetrics and gynecology. 14. Hygiene and epidemiology. 15. Military medicine. 16. Legal medicine. 17. Colonial and naval medicine,

The executive committee of the congress has the intention to print, before the reunion, all the official reports; it is necessary that they shall be given before the 30th of September, 1905, to the general secretary. For the free communications it is necessary that they should be given before the 31st of December, 1905, if the authors want that the conclusions should be printed before the opening of the congress.

The official language is the French. In the general assemblies, as in the sections, English, German and French may be used. We see that the committee of the congress has excluded the Portuguese from the languages permitted. This has only been done with the intention of diminishing the number of languages spoken; there can be no jealousy when the legislator begins by sacrificing himself.

The president of the committee on organization is the Doctor M. da Costa Alemão; the general secretary is the Doctor Miguel Bombarda. All the adhesions (*sic*) must be addressed to this doctor (Hospital de Rilhafoles, Lisbon). — *California State Journal of Medicine*.

Theories of Immunity.—Cappellani's investigation concerns itself with the question as to the mode of action of preventive and curative serums, such as diphtheria antitoxines, *i. e.*, whether these substances act simply in view of certain antibodies contained in them, or as a result of their influence upon the cells of the body, in which they stimulate the production of antitoxic and antibacterial agents. Cappelletti found that when diphtheria bacilli are inoculated into guinea pigs previously immunized with diphtheria antitoxine, the growth of germs obtained is not a normal one, but in the shape of deformed, elongated and branched rods. This anomalous growth of bacilli was not due directly to the influence of antitoxine, as was proved by experiments in test tubes, with cultures of the bacillus grown after the addition of antitoxine to the culture medium. The bacilli grown thus did not show any morphological changes.

Guinea pigs were then immunized against diphtheria, and bladders of collodion filled with broth cultures of diphtheria bacilli were then introduced into their peritoneal cavities. The bacilli in these cultures showed the branching and the other changes described, and if the germs were allowed to remain in these bladders long enough, they lost their power of reproduction. These changes did not occur in normal guinea pigs, unless the cultures were kept in them for over a month. This is explained by the fact that with the diphtheria culture there was introduced a certain amount of diphtheria toxine, which in time immunized the normal pig.

The changes in the diphtheria

bacillus in these experiments were due, the author thinks, to the influence of antibodies circulating in the animal, and which were formed there under the action of the antitoxine. These antibodies are specific, because experiments with the introduction of other germs than Loeffler's bacillus into animals immunized against diphtheria produced negative results.

According to these researches, therefore, the immunity conferred by an antitoxine introduced into an animal is not a passive one, as Ehrlich called it, for the serum causes the development of antibodies in the immunized organism. Metchnikoff's theory of phagocytosis does not hold good in these cases, as the bacteria were separated from all direct cellular influence by the collodion membranes.—*New York Medical Journal*.

Tap Filters Harmful.—Dr. S. A. B. —Ordinary tap filters are far from a protection against water infection; boiling the water is a much safer procedure. Perhaps we can do no better than quote from a recent issue of the *Chicago Bulletin of Health* on this subject:

"The common tap filters are not only worthless, but are actually harmful, because they do not stop any of the bacteria, only the organic matter, such as animal and vegetable detritus. Now, when the water is shut off, a few bacteria remaining upon this animal matter find it to be a suitable food, and, as a result, they increase enormously in numbers, so that the next water drawn through the tap filter washes them out, and the longer such a filter is used the more bacteria are found in the water which it fil-

ters. Stone or porcelain filters are of value, but only if properly cleaned. During the first few hours such a filter is used, the bacteria, being so small, pass through the pores of the filter. These pores finally become clogged with bacteria. Then, after a few hours, depending upon the pressure, the water will be free from bacteria, but after a day or so the bacteria grow through the filter, and the water is again contaminated. Therefore, the first water coming from such a filter should be rejected, and the filter itself should be boiled and thoroughly cleaned every two or three days.—*Merck's Archives*.

Influence of Skin Grafting on the Recurrence of Morbid Growths.—Campbell, writing to the *British Medical Journal* of February 13, 1904, refers to the influence of skin grafting on the recurrence of morbid growths as follows: In case of lupus, if the affected skin be excised and skin grafting of the raw surface be employed, there is no tendency for the disease to recur, whereas, if the wound be stitched up, there is a marked tendency to the formation of tuberculous nodules in the stitch holes and scar. The same observation applies to keloid scars. There is also reason to believe that skin grafting exercises an inhibitory influence on the skin. The author has not yet been able to satisfy himself that carcinomata are affected in the same way.—*The Therapeutic Gazette*.

Position of the Human Stomach.—The former teaching that the lowest part of the stomach is formed by the greater curvature was founded upon

observations on the cadaver, and is not now generally received. The writer, extending his researches upon the digestive movements from animals to man, has confirmed the modern view by the x-rays. From the shadow cast by a normal human stomach containing food with bismuth subnitrate, it can be seen that as digestion proceeds the longitudinal and oblique muscular fibers contract, and lift up the organ toward the fixed cardiac orifice; hence, in the later stages, the pylorus is the lowest point, and, when it opens, the fluid will pass out of the stomach by gravity.—W. B. Cannon, in *American Journal of Physiology*, February, 1904.

Malarial Fever in Suez.—Pressat states that the fever was brought to Suez by the Greek and Italian laborers on the canal, the necessary mosquito and fresh water shortly preceding them when Ismailia was built for the early canal constructors. The fever in this town has been completely stamped out by pouring a mixture of crude and refined petroleum on every pool of stagnant water, however small, once a week, and by the free distribution of quinine and arsenical solutions for prophylactic purposes. Three grains of quinine sulphate were administered every morning to each workman, and this amount was found to be absolutely protective against an army of wicked anopheles.—*New York Medical Journal*.

A Study of the Tubercle Bacilli Isolated from Three Cases of Tuberculosis of the Mesenteric Lymph Nodes.—Theobald Smith states that the bacilli

from these three cases of presumable food infection do not correspond to the bovine type of bacilli in any one particular. They were readily cultivated from nearly all the guinea-pigs inoculated, and they grew luxuriantly from the start on dog's serum. Morphologically the bacilli were either fairly long, *i. e.*, they averaged about two microbes in length, or else they were very variable, polymorphic. The uniformly short, straight forms of the bovine type were absent. In all cases the bacilli were of a very low order of virulence, lower even than that of many of the cultures of human origin studied before. None presented the reaction curve of true bovine bacilli. The writer concludes by saying that we have as yet no satisfactory evidence concerning the degree of change, if any, which tubercle bacilli of bovine type may undergo in the human body. He believes that it is at present quite inconceivable that changes could be as thoroughgoing as would be the case if we were inclined to attribute these cases of infection by way of the digestive tract to milk. He believes that we must refer them to infection with bacilli of strictly human origin.—*Medical Record*.

The Japanese Red Cross is a striking illustration of the scientific foresight and organized care the government gives to the health of its people. In a recent number of *The Outlook*, George Kennan describes the marvelous perfection of this branch of the service. Six or seven years before the first Red Cross association was organized in the United State, and long before Japan became a party to

the Geneva convention, she acknowledged and carried into execution the fundamental principle of Red Cross work—the impartial treatment of all wounded belligerents in time of war. Today the Russian wounded and dead are cared for by the Japanese soldier, who an hour before may have done the wounding, as well as his own brother in arms. The Red Cross is indeed now a part of the government's own military establishment, although deriving its support from the people and within limits managing its own affairs. In 1896 it had 201,011 members, received from them \$270,000, besides 292,277 other gifts. Kennan says that on January 1, 1904, the Japanese Red Cross had ready for immediate work, 14 chief surgeons, 277 ordinary surgeons, 45 pharmacists, 1,920 trained nurses, 457 probationary nurses, 763 stretcher bearers and male attendants.

In the shape of material resources and relief stores, it had 4 hospital steamers, 398 cases of surgical instruments, 496 stretchers, 52,438 suits of clothing for sick or wounded patients, 27,199 suits of clothing for nurses, and a great quantity of bedding, cots, tents, medicines and other supplies for field and hospital work. In short, it was prepared to take the field at once, in a war of the first class, with abundant resources, with a highly trained and competent force of surgeons and nurses, and with a most complete and up-to-date equipment. Compare this—but no, we will not!—*American Medicine*.

Vitality of Germs of Diphtheria for a Long Time.—A health officer in Me-costa county reports to the secretary

of the Michigan State Board of Health that twenty years ago Mrs. T. lost a daughter by death from diphtheria, and then some of the girl's clothing was put away in a chest and nailed up. The chest was not disturbed until this spring, when the mother, seventy-five years of age, opened it and looked over the clothing, soon after which she was taken sick with diphtheria and died, June 17, 1904. The health officer believes she contracted the disease from the clothing, infected twenty years ago.—*Virginia Medical Semi-Monthly*.

Sanitation and the Panama Canal.—It has been said that as many as 50,000 men lost their lives by disease during the French attempt to dig the Panama Canal. It is evident that the United States will go about the job in a better way, and is already taking steps to avoid such a scandal. Surgeon-Major Edie, whose experience at Manila should enable him to judge intelligently, has studied the sanitary problem for our government, and Colonel Black, described as "the man who cleaned up Havana," has made a sanitary survey of the canal zone. Comfort is said to be derived from the fact that there will be little upturning of new earth, only extending deeper the cuts already begun, etc., but is there really any scientific basis for the belief that new diggings in the earth liberate the causes of disease and greatly increase the death rate? Everything points to the necessity of a strict military control of the sanitary conditions and lives of the workmen. Today the inhabitants of Panama, although in a tropical country, close their windows at night and

sleep in a fetid atmosphere, because of the fear of malaria, thus reducing vitality and increasing the chances of many terminal diseases. They have not learned the role of the mosquito, and the workmen must be instructed in this and in the use of pure water, etc., as if they were children. More than that, they must be compelled to practise those hygienic precautions which we now know prevent disease. The French cared nothing for these things, and their failure was largely due to the immoral neglect. Practical morality, in fact, is the prevention of disease, the subordination of the financial and stock-broking elements to those of a higher order can only insure the construction of the canal without the reckless waste of life and money formerly exemplified. This is emphasized by Dr. C. A. Stephens (*Youth's Companion*), who says, as a result of the French neglect of these sanitary measures, there was a direct loss of about 70,000,000 francs: "The indirect loss from delay and demoralization can never be determined. Such a premium does nature set on the health protection of laborers at Panama. Almost any sum, the expenditure of \$5,000,000, indeed, in an up-to-date system of health protection will return to the government threefold before the canal is completed. It will prove the best of all economic investments." — *American Medicine*.

The Money Waste of Typhoid Fever.—Dr. Vaughn of the University of Michigan, in a recent address, entitled "Water Supply of Cities," says:

"There die in this country every year from typhoid fever alone not less

than fifty thousand people. There are sick in this country not less than five hundred thousand people from the same cause. To get down to dollars and cents, which is the American way of figuring everything, say that the average human life is worth a thousand dollars. Then with fifty thousand deaths from this disease, we are losing by death alone fifty millions of dollars. But there are five hundred thousand people sick. Then we will say that the time of each one of these individuals is worth a dollar a day. Besides that there must be at least one nurse, and we will suppose that these services are worth one dollar a day. Then for each day that those five hundred thousand people are sick, the people of the United States are paying one million dollars. And forty days is certainly an average duration for typhoid fever. Then with this forty millions and the fifty millions lost by death, it is interesting to note that the people of the United States are paying a tribute of ninety million dollars to our ignorance for the existence of a disease which, if every man did his duty, would not exist at all."

In these few words Dr. Vaughn has clearly and forcibly stated facts concerning the prevalence of typhoid fever and its cost to the country. To lessen the cause of typhoid fever is more difficult than many people would suppose, but it is practical. The health officer, or health superintendent of every city ought to insist upon a thorough water analysis at least twice a month, and cities of any considerable size ought not to be allowed to have wells at all. If they exist, they

should be subjected to the same regular examinations as that of the public water supplies, and if found at all suspicious, they should be immediately filled up. This would eliminate them very fast. If the same rigid rules were carried further into the country and the superintendent of health of the counties were instructed, or forced to test the purity of the water of all wells, typhoid fever would prevail a great deal less than it does.
—*The Charlotte Medical Journal*.

Simulated Intestinal Perforation.—

It is not very uncommon for grave conditions to be simulated, though as a rule the simulation is not so close as absolutely to defy detection. In recent French experience, however, there have occurred three cases of "false perforation" of the intestine in typhoid fever cases in which the classical symptoms and signs of perforation were pronounced, and yet nothing but intestinal hyperæmia was discovered on laparotomy. These cases are made the subject of comment by M. R. Romme in the *Presse Medicale* for August 13th, especially one reported by M. Rochard in the *Gazette des Hopitaux*.

M. Rochard was called in haste one morning to a man in M. Debove's service, who, being convalescent from typhoid fever, had been taken about three hours before with symptoms of the greatest gravity. His face had a pinched expression, his forehead was covered with cold sweat, he complained of atrocious pain in the abdomen, and he was vomiting incessantly. The temperature was below normal; the pulse was over 100, small and quick; the abdomen was

but little distended, but its muscles were contracted, and the pain, which was chiefly on the right side, was manifestly increased by pressure in the region of the cæcum. The diagnosis of perforation was made, and the abdomen was opened at once, but, although the cæcum, the vermiform appendix, the duodenum, the stomach and the gall-bladder were examined carefully, they were all found to be perfectly normal. The only abnormality discovered was exaggerated vascularization of the transverse colon. The abdomen was simply closed, and the patient made a good recovery.

M. Rochard cites the two other cases—one observed by Delorme, and the other by Alglave and Boisseau. In both of them there was the same clinical picture of perforative peritonitis. In Delorme's case only slight redness of the small intestine was found on laparotomy, and in the other case congestion with false membranes at the situation of the ileum. These two patients also recovered.

M. Rochard does not hesitate to look upon these three cases as examples of incipient peritonitis, and he imputes the gravity of the symptoms observed to the exaggerated sensibility of the peritonæum in the patients. But these questions arise: What caused the peritonitis, if such it was; and how was a simple abdominal incision curative? We know that mere abdominal section without any further procedure has often been fol-

lowed by recovery in cases of tuberculous disease of the peritonæum. Are we to expect that the same operation will prove equally applicable in cases of non-perforative peritonitis occurring in patients recovering from typhoid fever?—Editorial in *New York Medical Journal*.

Quackery.—An antiquackery congress is planned by the French profession. But if they have need of it there, how much greater is the need in our country! We can surely furnish them ten quacks to their one, and their peculiar brand seems to differ radically from ours, if an illustrative story may be believed: A street dealer in nostrums was asked by the police to show his diploma, which he did, as he was a well-equipped physician. But he begged that his secret should not be given to the people, because they would have nothing to do with a man with a regular education and a diploma. We do things differently over here, for the quack, bitter against the medical profession, takes great pride in advertising himself M. D., professor or even higher types of D.'s. Our French colleagues will have no difficulty, probably, in securing the enactment of the laws they wish, as the profession is much respected in France—again a noteworthy difference from conditions here. But one may doubt if the laws there are passed whether the vogue of quackery will thereby be much lessened.—*American Medicine*.

COUNTY SOCIETY NOTES.

ST. LOUIS MEDICAL SOCIETY.

Dr. B. M. Hypes, President.
 Dr. H. C. Dalton, Vice-President.
 Dr. T. A. Hopkins, Recording Secretary.
 Dr. H. J. Scherek, Corresponding Secretary.
 Dr. R. M. King, Treasurer.

The meetings of the St. Louis Medical Society have been full of interest since the resumption after the summer's recess. The presence in our city of a host of celebrities consequent to the holding of the International Congress of Arts and Science in connection with the Fair, and consequent also to several other medical gatherings of national and international character, has made it possible for the society to hear in its halls men who have contributed largely in making modern medicine. Among the essayists from abroad we have heard Prof. Dr. W. P. Dunbar, of Hamburg, Germany, on "Observations on the Cause and Treatment of Hay Fever;" Prof. Dr. A. Wasserman, of Berlin, Germany, on "Immunity and Serum Therapy, Principally with Reference to the Origin of Antibodies;" Prof. Kachici Mitsakuri, of the Japanese Imperial University at Tokio, who spoke on "Medical Education in Japan;" Prof. Dr. Otto Cohnheim, of Heidelberg, and Dr. Braeger, of Berlin. The addresses of Drs. Dunbar and Wasserman were exceptional in their scientific worth, while that of Prof. Mitsakuri was entertaining and instructive in the extreme, giving, as the Professor did, just the information we wished of the requirements and regulations of practice and the

general condition of the profession in Japan.

Among the American authorities to whom it has been our privilege to listen were Dr. Chas. K. Mills, of Philadelphia, on "Observations on Cerebellar Tumors;" Dr. Chas. L. Dana, of New York City, on "The Psychoneuroses;" Dr. H. N. Moyer, of Chicago, on "Indications for Surgery in Injuries of the Spine Involving the Cord;" Dr. W. T. Eckley, of Chicago, on "Logical Conclusion Regarding the Function of the Accessory Sinuses in Man, Founded on their Phylogenetic Study;" Dr. Walton, of Boston; Dr. Putnam of Boston; Dr. Patrick, of Chicago; Dr. Punton, of Kansas City, and others.

The following papers have been presented by members of the society:

"Hemorrhage from the Lachrymonasal Duct from the Removal of a Styte," by Dr. J. C. Buckwalter.

"Report of a Case of Fracture of the Lower Dorsal Vertebra with Paraplegia; Operation; Recovery with Partial Restoration of Function," by Dr. M. W. Hoge.

"Surgical Aspects of Dr. Hoge's Case," by Dr. H. G. Mudd.

Dr. Buckwalter presented a patient showing exposure of the temporal lobe of the brain, the result of atrophy of the petro-mastoid bone by cholesteatoma.

Dr. N. N. B. Carson presented three specimens—

(1) Complete resection of the bladder behind the prostate.

(2) Resection of the pyloric end of

the stomach and five inches of the colon for cancer.

(3) Complete excision of the sternum in a child two and one-half years old for sarcoma.

The society is called upon to mourn the death of Dr. T. F. Prewitt, which occurred at his residence, 4917 Berlin avenue, on October 17th. Dr. Prewitt was at one time president of the society and has been so long a prominent character in professional and medical educational matters that his name is familiar throughout the country. A more extended tribute to his memory appears in another column. The society was officially represented at Dr. Prewitt's funeral by Drs. McPheters, Funkhouser, King, Kieffer, Newman, P. G. Robinson, Dorsett and W. G. Moore who were appointed pallbearers for the society.

At its meeting on October 1st the following physicians were elected to associate membership:

Dr. W. E. Leighton, 3339 Lucas avenue.

Dr. F. A. Schulte, 2447 North Spring avenue.

Dr. C. D. Cobb, 2900 Washington avenue.

Dr. Ben. Shanklin, 2734 Chouteau avenue.

The subject of meeting place, which has for several years been periodically agitated, had again been considered by the society and this time has been brought to consummation of evident need. The society voted at its meeting, October 15th, to meet in the small hall of the Y. M. C. A. building. This hall is capable of seating 350 persons, is centrally located and its adoption will, it is believed, contribute largely

in increasing the attendance at the meetings.

T. A. HOPKINS, M. D.

STODDARD COUNTY MEDICAL SOCIETY.

Dr. T. B. Turnbaugh, President.

Dr. T. B. Wingo, Vice-President.

Dr. D. R. Corbin, Secretary.

The Stoddard County Medical Society met in regular session at Dexter September 2, President Turnbaugh in the chair. Owing to much sickness in the county the attendance was small. Papers on "Prescription Writing for Alcoholics" were read by Drs. Turnbaugh and Douglass. Stoddard is a local option county. Dr. Turnbaugh, recognizing that promiscuous writing for whiskey is wrong, would not, however, advise a ruling which would prevent writing a prescription for whiskey when necessary. Dr. Douglass pointed out the great value of alcohol in practice, but could see no reasonable excuse for prescribing a pint of whiskey at a dose, and he very forcibly denounced promiscuous writing of whiskey prescriptions, which brand the physician as a mere parasite attached to the whiskey-vending drug store. Dr. Corbin, in discussion, stated that he had written for whiskey, but had had his confidence abused, and would favor an agreement by the society prohibiting the writing of such prescriptions. Dr. Hill would never write a prescription for whiskey, being firmly of the opinion that whiskey has no place in medicine. Dr. Vernon thinks whiskey valuable, but a not absolutely necessary remedy. Neither Dr. Klein nor Dr. LaRue keep whiskey at their

respective drug stores. Dr. Allen believes that whiskey has no place in medicine. After an extended discussion of the subject, the society voted to vigorously prosecute the illegal writing of illegal whiskey prescriptions as well as the filling of them. The proper officers of the society were ordered to prosecute certain illegal practitioners and midwives in the county. Drs. Hill, Turnbaugh and Slayden were named a committee to prepare resolutions on the death of Dr. Jackson. The society adjourned to meet at Bloomfield the first Wednesday in December.

T. C. ALLEN, Reporter.

MONITEAU COUNTY MEDICAL SOCIETY.

Dr. J. B. Stewart, President.
 Dr. J. M. Robertson, Vice-President.
 Dr. J. B. Norman, Secretary.
 Dr. H. C. Klueber, Treasurer.
 Dr. J. B. Norman, Delegate.

The Moniteau County Medical Society met in regular quarterly session in Latham September 8th, President J. B. Stewart in the chair. The subject of illegal practice of medicine was taken up and thoroughly discussed, a committee of three, Drs. H. W. Latham, S. H. Redmon and J. B. Burke, being appointed to investigate the matter and, if necessary, to bring action against any whom they might find to be illegally practicing medicine within the county. Dr. W. R. Patterson read a paper on "Hydrotherapy." Clinics were held by Drs. H. W. Latham, W. H. Elliott and J. M. Robinson. After a general discussion of the "Treatment of Typhoid Fever," the society adjourned to meet

in California, Mo., the second Tuesday in December, at which time will be held the election of officers for the next year. A banquet will follow the election. Drs. J. B. Stewart, J. B. Norman and H. C. Klueber constitute the committee on arrangements.

W. R. PATTERSON, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.
 Dr. Harry Tatum, Vice-President.
 Dr. C. A. Jennings, Secretary-Treasurer.
 Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society held its regular monthly session in the office of J. Franklin Welch, at Salisbury, Thursday, September 29th, Dr. M. B. Austin presiding. The minutes of the August meeting were read and approved. Visiting physicians present were Drs. Dameron, Jarvis and Epperly. Dr. C. H. Temple presented a clinic: man, white, married, forty-five years of age. At seven years of age he suffered traumatic injury to the penis. Ejaculations have ever given him great pain. Drs. Dameron, Epperly and Welch were made a committee to examine the case and report. They reported it to be a case for circumcision.

Dr. C. H. Temple read his paper on "Proprietary Medicines."

The paper met with most hearty approval. Dr. Kirkpatrick's paper on "Inflammatory Rheumatism" is to be read at the next meeting. The society adjourned to meet the last Thursday in October.

L. A. BAZAN, Acting Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. R. D. Moore, President.
 Dr. Howard Carter, Vice-President.
 Dr. H. G. Wyer, Secretary.
 Dr. N. N. Jensen, Treasurer.
 Dr. W. H. Wyer, Delegate.

The last meeting of the St. Louis County Medical Society was held at Clayton on September 14th. Lunch was served, followed by the regular business meeting. The secretary was elected reporter for the remainder of the year. Drs. R. C. Forsythe, of Kirkwood, and R. B. Denny, of Eureka, were elected to membership. Dr. F. C. Ewing spoke at length on the "so-called hay-fever" and Dunbar's serum. The society then adjourned till October 12th.

H. G. WYER, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. W. T. Elam, President.
 Dr. J. B. Reynolds, Vice-President.
 Dr. J. J. Ransbach, Treasurer.
 Dr. O. B. Campbell, Delegate.
 Dr. Chas. Wood Fassett, Secretary.

The Buchanan County Medical Society met in regular session October 7th. A considerable portion of the meeting was taken up in discussions upon the report of the committee which had been instructed to frame a fee bill. Each item was considered separately, and the bill as a whole will be adopted at the next meeting. In order to increase attendance at the society meetings two amendments to the by-laws were passed as follows: First, Whenever any officer (including censors) absents himself from the society for three consecutive meetings, unless satisfactory excuses can be

given, his position will be considered vacant, and his successor will be elected at once. Second, Members of the Buchanan County Medical Society absenting themselves from two-thirds of the meetings during the year, or from four consecutive meetings during the time, shall forfeit their right to vote upon any question before the society or upon the election of officers unless unavoidably detained by personal sickness or sickness in their family or by absence from the city. The following resolution also met the approval of the society: That in the future, after an applicant has been passed upon by the censors in the usual way, he shall be reported back to the society to be voted upon at the following meeting, his name meanwhile being sent to each member of the society upon the regular society announcement cards, which are distributed by the secretary. At the next meeting the question of pure milk will be considered. Dr. Gray will prepare a paper on "The Need for Milk Legislation in St. Joseph."

L. A. TODD, Reporter.

HOLT COUNTY MEDICAL SOCIETY.

At the fourth quarterly meeting of the Holt County Medical Society in Forest City, on the 4th inst., the following papers were read: "Heredity," Dr. T. O. Davies, Maitland; "Mumps," Dr. J. F. Chandler, Forest City; "Syphilis," Dr. B. T. Ingle, Mound City. Dr. F. E. Bullock, of Forest City, presented a pathological specimen of dermoid cyst, with a very interesting report of the case. Dr. J. M. Davis, of Craig, reported a

very unusual case of appendicitis. Dr. T. O. Davis reported two very interesting cases. The discussions which followed were very enthusiastic and to the point. There is promise that the next regular meeting at Maitland, January 3, 1905, will be the greatest in the history of the society.

J. F. CHANDLER, Reporter.

ST. CLAIR COUNTY MEDICAL SOCIETY.

Dr. W. Cline, President.

Dr. W. B. Pringrey, Vice President.

Dr. E. D. Miles, Secretary.

Dr. John Seevers, Treasurer.

The St. Clair County Medical Society met in regular session in Osceola Tuesday, September 13th, Dr. Cline presiding. The attendance was good. Interest in the society is growing throughout the county. Two new members were voted into the society. Papers were read on "Curability of Tuberculosis" and "Prescribing and Dispensing," after which all repaired to the annual banquet, which was enjoyed to the utmost.

E. D. MILES, Reporter.

RALLS COUNTY MEDICAL SOCIETY.

Dr. O. B. Hicklin, President.

Dr. T. J. Downing, Secretary.

The physicians of Ralls county met, by request of Dr. L. W. Dallas, councillor for fifth district, in New London, October 10th, and organized the Ralls County Medical Society, with twelve members, as follows: Drs. McCullum, Birney, Harwood, Hicklin, Ragan, Graves, Hendrix, Downing, Suter, Walter, Wicks and Winn. They will meet at Perry in January, New London in April, Spalding

Springs in July and Center in October. Inasmuch as there are but fourteen physicians in the county, the relative membership of this new society is the best in the state, speaking volumes for the intelligence of the physicians of Ralls county. That they are earnest in their desire to reap the benefits of organization is evident. Dr. Dallas writes: "I was delayed in reaching New London at the hour agreed upon, and when I arrived found the organization almost completed. This is mentioned to show that the doctors are in earnest, and will go on regardless of obstacles. They passed resolutions, adopted the state and county constitutions and made application for charter." The fifth district is now solidly organized, for which Dr. L. W. Dallas deserves much credit.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. A. S. Herndon, President.

Dr. R. P. Davis, Vice-President.

Dr. G. C. Coffey, Secretary,

Dr. J. A. Baldwin, Treasurer.

Dr. S. Reidman, Delegate.

The regular monthly meeting of the Platte County Medical Society was held in Platte City Wednesday, October 5th, Dr. Herndon, presiding. The minutes of the previous meeting were read and approved. Dr. J. W. Winn read a paper on "Hydrophobia," reporting therein a case occurring in his practice. Death resulted about three weeks after the dog bite, in spite of all that could be done, not excluding the application of a so-called mad stone. The doctor believes there is no special value in the mad stone beyond the mental effect produced.

Dr. Barr, in discussion, stated that from a case carefully studied by him he is of opinion that the symptoms are much exaggerated by the mental attitude of the patient, and that the mad stone or anything else which serves to control the hypersensitive imagination is of value in so far as it exercises such control. Dr. Barr presented a very interesting case, a boy who fell on a pitchfork, which penetrated the right external auditory meatus. There resulted right facial paralysis and inco-ordination in walking. After liberal discussion of the salient features of this case the society adjourned to meet in Platte City November 2d.

GRUNDY C. COFFEY, Reporter.

COOPER COUNTY MEDICAL SOCIETY.

Cooper County Medical Society met pursuant to adjournment at the office of Dr. P. L. Hurt, President J. D. Potts in the chair. Drs. Moss, Meyer, Noyes of Columbia and V. Q. Bonham of New Franklin, being present, were invited to take part in the discussion. The minutes of the previous meeting were read and approved. Dr. Moss presented a very interesting case of obscure tumor in the abdominal wall two inches to the right of median line and about midway between the umbilicus and the ensiform cartilage. Dr. Hurt presented a case of senile cataract for consideration. Dr. J. D. Potts read a paper on pneumonia and typhoid fever, advancing somewhat novel methods of treatment. He took the ground that pneumonia was simply a local manifestation of a general toxæmia, and that as such it should be treated by with-

drawal of toxine-loaded blood and the injection of an equal quantity of sterile normal saline solution. This paper was discussed by Drs. Moss and others. Upon motion Dr. P. S. Williams, of Bunceton, was nominated and elected delegate to the state association. Papers for our next meeting will be read by Drs. Smiley and Holman on subjects of their own selection. The society, with guests, took dinner at Wagner's. There being no further business, the society adjourned to meet on the first Tuesday in November at Dr. Hurt's office.

R. L. EVANS, Reporter.

CALDWELL COUNTY MEDICAL SOCIETY.

Dr. C. C. Leeper, President.
Dr. B. F. Carr, Vice-President.
Dr. Tinsley Brown, Secretary-Treasurer.
Dr. G. B. Cowley, Reporter.

The Caldwell County Medical Society met in regular quarterly session at Cowgill on Wednesday, October 5th, Dr. C. C. Leeper presiding. Dr. J. O. Wilkerson, of Cowgill, was elected a member. Dr. Herman E. Pearse, of Kansas City, presented a paper on "The Surgical Treatment of Tuberculosis of the Kidney," with several interesting specimens. The paper was generally discussed and approved, and a vote of thanks was tendered to Dr. Pearse for the same. Dr. G. B. Cowley, of Cowgill, read a paper on "Labor and the Puerperal Period," and Dr. B. F. Carr, of Polo, a paper on "The Treatment of Inevitable Abortion," both of which elicited lively discussions, participated in by nearly all members present. The next meeting will be held at

Braymer, on the first Wednesday in January, 1905.

G. B. COWLEY, Reporter.

PUTNAM COUNTY MEDICAL
SOCIETY.

Dr. C. H. Carrier, President.

Dr. J. A. Townsend, Secretary.

Dr. A. D. Ellis, Treasurer.

Dr. L. L. Gray, Delegate.

The Putnam County Medical Society met in regular session September 7th, President Carrier in the chair. Dr. L. L. Cozad, of Lucerne, graduate of St. Louis P. & S., 1903, elected to membership. Report of a case of labor, with retained placenta, by Dr. J. E. McCutchen, was followed by liberal discussion. A paper entitled "Urinalysis," by Dr. J. H. Holman, was read. Discussion of this paper was postponed until next meeting.

J. A. TOWNSEND, Reporter.

MARION COUNTY MEDICAL
SOCIETY.

Dr. J. S. Howell, President.

Dr. Richard Schmidt, Vice-President.

Dr. F. Janet Reid, Secretary-Treasurer.

Dr. Thomas Chowning, Delegate.

The Marion County Medical Society held its regular meeting at the office of Dr. E. S. Hornback, in Hannibal, Dr. Howell in the chair. A most interesting paper on "Empyema" was read by Dr. E. H. Bounds, who presented a clinical case, girl nine years old, who, in January last, recovered from an attack of "grip-pneumonia," right side, only to have later a pleural effusion of the same side. Resection of portions of the seventh and eighth ribs with well-established and long-continued drainage resulted in recovery with good expansion. A lively discussion of means to awaken interest in the society followed, after which the society adjourned.

H. L. BANKS, Reporter.

BOOK REVIEWS.

A Text Book of Alkaloidal Therapeutics, Being a Condensed Resume of All Available Literature on the Subject of the Active Principles Added to the Personal Experience of the Authors. By W. F. Waugh, M. D., and W. C. Abbott, M. D., with the collaboration of E. M. Epstein, M. D. The Clinic Publishing Co., Chicago, 1904. On the title page appears the following: "The Smallest Possible Quantity of the Best Obtainable Means to Produce a Desired Therapeutic Result." This motto gives us the essence of alkaloidal therapy, a new form of medication, the principles of which are set forth in the book now before us.

A Manual of Experimental Physiology for Students of Medicine. By Winfield S. Hall, Ph. D., M. D. (Leipsic), Professor of Physiology, Northwestern University Medical School; Professor of Physiology, Wesley Hospital School for Nurses; Lecturer on the Physiology of Exercise, Institute and Training School, Chicago. With eighty-nine illustrations and a colored plate. Lea Brothers & Co., 1904. This little volume seems admirably adapted for the purpose for which it is intended—viz., as a student's laboratory manual. It is the outcome of a decade of accumulated experience in the presentation of experimental physiology to

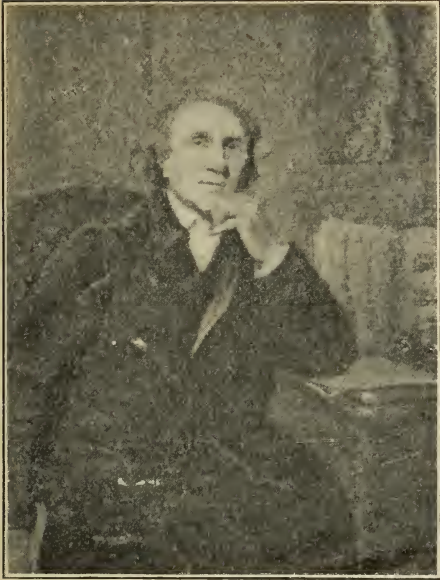
medical students, the exercises having undergone annual revision by the author, who has ever kept in mind "the fact that his pupils were preparing for clinical practice. The experiments are carefully chosen, and arranged to involve a considerable amount of surgical work and to present to the student those fundamental facts and principles of physiology which form the basis of internal medicine."

Although the state medical journal is rapidly superseding the "Transactions" of state medical societies, there are yet a number of states slow to adopt the journal idea. We are in receipt of the Transactions of the Iowa State Medical Society, Volume xxxii, Fifty-third Annual Session, 1904. The book contains over three hundred and seventy pages, and is neatly and substantially bound.

The Transactions of the Seventy-first Annual Session of the Tennessee State Medical Association, 1904, comes from the press of the Southern Publishing Association, a very commendable volume.

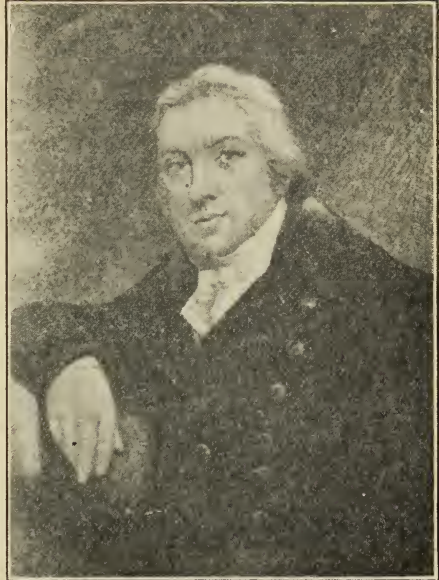
The Transactions of the Medical Society of the State of New York for the year 1904 fill a volume of over five hundred pages.

BIOGRAPHICAL SKETCHES.



JOHN HUNTER.

John Hunter, younger brother of the great surgeon, William Hunter, was born February 13, 1728, at Long Calderwood, Lanarkshire. In 1749 he attended the lectures and operations of Cheselden, and in 1750 became surgeon pupil at St. Bartholomew's. From 1764 to 1771 he practiced in London, and from the latter date to his death he carried on extensive biological researches at his place at Earl's Court. On October 16th, while pleading the cause of two prospective hospital students who had the ambition, but not the required preliminary credit for entrance to St. George's, the interruption of his remarks by a flat contradiction from one of his colleagues brought on one of his old spasmodic heart attacks; he ceased speaking and retired into an adjoining room only in time to fall lifeless into the arms of Dr. Robertson, one of the hospital physicians.



EDWARD JENNER.

Edward Jenner, favorite pupil of John Hunter, was born at Berkeley, Gloucestershire, May 17, 1749. While an apprentice at Sodbury his attention was directed to the relations between smallpox and cowpox connection, with a popular belief, which he found current in Gloucestershire, as to the antagonism between these two diseases. In 1770 he communicated his thoughts in the matter to John Hunter, who replied, "Do not think; investigate." Accordingly he went to Berkeley and performed the little operation which has made his name famous. In London more than twelve thousand persons were inoculated in the first eighteen months and the deaths from smallpox, which had averaged two thousand and eighteen annually, fell in 1804 to six hundred and twenty-two. Jenner died full of fame and honor in his native place in 1823.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison	E. E. Richards...	Tarkio	A. McMichael....	Rockport.
Audrain	C. T. Vernon.....	Mexico	C. A. Rothwell...	Mexico.
Bates	A. E. Lyle	Butler	E. N. Chastain....	Rich Hill.
Boone	R. S. Austin.....	Halsville	J. M. Fisher....	Columbia.
Buchanan	W. T. Elam.....	St. Joseph.....	Chas. W. Fassett.	St. Joseph.
Butler	Chas. F. Greene..	Poplar Bluff....	J. J. Norwine....	Poplar Bluff.
Caldwell	G. W. Goins.....	Breckenridge ...	Tinsley Brown...	Hamilton.
Callaway	C. H. Christian..	New Bloomfield..	M. Yates.....	Fulton.
Camden	G. M. Moore.....	Linn Creek.....	G. T. Myers.....	Macks Creek.
Carroll	W. C. Baird.....	Bogard	R. F. Cook.....	Carrollton.
Cass	H. Jerard.....	Pleasant Hill....	J. S. Triplett....	Harrisonville.
Chariton	M. B. Austin.....	Brunswick	C. A. Jennings...	Salisbury.
Clark	H. W. Harris....	Winchester	A. C. Bridges....	Kahoka.
Clay	L. J. Jones.....	Linden	F. H. Matthews..	Liberty.
Cole	R. E. Young.....	Jefferson City...	G. Etmueller....	Jefferson City.
Cooper	J. D. Potts.....	Boonville.....	R. L. Evans.....	Boonville.
Crawford	W. A. Metcalf...	Steelville.....	A. H. Horn.....	Steelville.
Current River...	J. A. Chilton....	VanBuren	Frank Hyde....	Eminence.
Daviess	W. N. Keener....	Jamesport	M. A. Smith....	Gallatin.
Grundy	J. A. Asher.....	Trenton	W. D. Fulkerson.	Trenton.
Henry	J. M. Miller.....	Montrose	F. M. Douglas...	Clinton.
Holt	B. T. Quigley...	Mound City	S. W. Aikens....	Oregon.
Howard	P. C. Smith.....	Fayette	C. W. Watts....	Fayette.
Howell	J. C. B. Dixon...	West Plains.....	H. C. Shuttee...	West Plains.
Iron	W. R. Gay.....	Ironton.....	Ira A. Marshall...	Ironton.
Jackson	J. W. Kyger.....	Kansas City....	E. L. Chambliss..	Kansas City.
Jasper	R. L. Neff.....	Joplin	J. D. Pifer.....	Joplin.
Johnson	J. I. Anderson...	Warrensburg ...	E. H. Gilbert....	Warrensburg.
John T. Hogden..	M. P. Overholser.	Harrisonville ...	H. H. Rhodes....	Foster.
Laclede	J. M. Billings...	Lebanon	J. A. McComb....	Lebanon.
Linn	G. N. Lantz.....	Brookfield	D. F. Howard....	Brookfield.
Livingston	R. Barney.....	Chillicothe	H. M. Grace....	Chillicothe.
McDonald	E. F. Doty.....	Anderson	M. L. Sellers....	Anderson.
McDowell Dist..	John D. Seba....	Bland	J. W. Nieweg....	Owensville.
Macon	W. E. Webb.....	Macon	G. B. Rush.....	Macon.
Madison	G. W. Greenwood.	Fredericktown...	C. U. Davis.....	Fredericktown.
Maries	O. C. Fritts.....	Lois	O. N. Schudde...	Vienna.
Marion	J. S. Howell....	Hannibal	F. Janet Reid...	Hannibal.
Mercer	H. P. Chesmore..	Princeton	C. R. Burne.....	Princeton.
Miller	J. W. Temple....	Eldon	G. D. Walker....	Eldon.
Mississippi	A. W. Chapman..	Charleston	H. L. Reid.....	Charleston.
Moniteau	J. B. Stewart....	Clarksbury	J. B. Norman....	California.
Monroe	G. B. Dysart....	Paris	W. B. A. McNutt..	Monroe City.
Morgan	J. D. Hubbard...	Versailles	J. T. Beale.....	Versailles.
Nodaway	J. A. Larrabee...	Barnard	F. R. Anthony...	Maryville.
Newton.....	J. W. Lamson...	Neosho	Horace Bowers...	Neosho.
Pettis	W. C. Overstreet.	Sedalia	W. S. Shirk....	Sedalia.
Phelps	W. H. Breuer....	St. James.....	S. L. Baysinger..	Rolla.
Platte	A. S. Herndon...	Camden Point...	G. C. Coffey....	Platte City.
Putnam	C. H. Carryer...	Hartford, Mo....	T. A. Townsend..	Unionville.
Ralls	O. B. Hickley...	New London ...	J. D. Downing...	New London.
Randolph	J. C. Ridings...	Cairo	D. A. Barnhart...	Huntsville.
Ray	Jas. W. Smith...	Richmond	C. B. Shotwell...	Richmond.
Reynolds	J. M. Lowery....	Centerville	T. W. Chilton...	Corridon.
Saline	D. C. Gore.....	Marshall	D. F. Bell.....	Marshall.
St. Clair.....	W. Cline.....	Appleton City...	E. D. Miles.....	Osceola.
St. Louis.....	B. M. Hypes....	2005 Victor St...	T. A. Hopkins...	Century Bldg.
St. Louis Co....	R. D. Moore....	Central	H. G. Wyer.....	Kirkwood.
Schuyler	J. T. Jones.....	Queen City.....	H. E. Gerwig....	Downing.
Scotland	W. E. Alexander.	Memphis	O. F. Pile.....	Memphis.
Shelby	Wm. Carson....	Shelbyville	L. W. Dallas....	Hunnewell.
Stoddard	T. B. Turnbaugh.	Bloomfield.....	R. D. Corbin....	Bloomfield.
Sullivan	J. C. Kissinger...	Milan	G. S. Milnes....	Milan.
Wayne.....	L. M. Pettit....	Greenville.....	I. N. Barnett....	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

COUNTY.	DATE OF MEETING.
Achison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Bi-Monthly. First and Third Friday.
Butler	Monthly
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	Monthly. Second Tuesday.
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	Subject to the call of the President.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper	Monthly.
Crawford	Monthly.
Current River	Quarterly. August, November, February, May.
Daviess	Monthly.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Monthly.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of November, January, March.
Iron	Monthly.
Jackson	Bi-monthly. Second and Fourth Thursday.
Jasper	Bi-monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen	Quarterly. October, January, April, July.
Laclede	Bi-annual. First Mondays May and November.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Semi-Annually. Fourth Thursday in October.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Monthly.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Mercer	Monthly.
Miller	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Newton	Monthly.
Nodaway	Monthly. Second Tuesday.
Pettis	Monthly.
Phelps	Quarterly. March, June, September, December.
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County	Monthly. Second Wednesday.
Schuyler	Bi-monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	First Wednesday in March, June, Sept. and Dec.
Sullivan	Monthly.
Wayne	Monthly.

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

OFFICERS MISSOURI STATE MEDICAL ASSOCIATION.

President: JABEZ N. JACKSON, Kansas City, Mo.

Vice-Presidents:

S. M. BROWN, Monroe City; H. W. LATHAM, Latham; T. M. POTTER, St. Joseph;
W. S. THOMPSON, Armstrong; J. C. ROGERS, Kansas City.

Secretary: C. M. NICHOLSON, St. Louis.

Assistant Secretary: E. J. GOODWIN, St. Louis.

Treasurer: J. FRANKLIN WELSH, Salisbury.

COUNCILLOR DISTRICTS.

FIRST DISTRICT.—F. B. HILLER, Kahoka. Counties, Clark, Scotland, Schuyler, **Adair, Knox, Lewis.**

SECOND DISTRICT.—J. B. BRUMMALL, Salisbury. Counties: Linn, Carroll, Chariton, Livingston, Grundy, Sullivan, Mercer, Putnam.

THIRD DISTRICT.—E. H. MILLER, Liberty. Counties: Clay, Ray, Platte, **Clinton, Caldwell, DeKalb, Gentry, Harrison, Worth, Davies.**

FOURTH DISTRICT.—C. H. WALLACE, St. Joseph. Counties: Buchanan, Holt, Atchison, Nodaway, **Andrew.**

FIFTH DISTRICT.—L. W. DALLAS, Hunnewell. Counties: Macon, Shelby, Marion, Randolph, Monroe, Ralls.

SIXTH DISTRICT.—WOODSON MOSS, Columbia. Counties: Audrain, Callaway, **Montgomery, Warren, Pike,** Boone, Howard.

SEVENTH DISTRICT.—W. B. DORSETT, St. Louis. Counties: **St. Charles,** St. Louis, **Lincoln.**

EIGHTH DISTRICT.—F. J. LUTZ, St. Louis. Counties: **Franklin, Gasconade,** Crawford.

NINTH DISTRICT.—B. M. HYPES, St. Louis. Counties: **St. Genevieve, Cape Girardeau, Perry.**

TENTH DISTRICT.—J. J. NORWINE, Poplar Bluff. Assistant to Dr. Norwine: Dr. I. A. Marshall, Ironton. Counties: Dr. Norwine—Butler, Mississippi, **Scott, New Madrid, Bollinger, Dunklin,** Stoddard, **Center, Ripley, Jefferson, Washington, Francois.** Dr. Marshall—Iron, Reynolds, Wayne, Madison.

ELEVENTH DISTRICT.—W. S. ALLEE, Olean. Counties: Miller, Morgan, Maries, Cole, Moniteau, Camden, **Osage.**

TWELFTH DISTRICT.—R. D. HAIRE, Clinton. Counties: Pettis, Johnson, **Lafayette,** Henry, St. Clair, **Benton,** Saline, Cooper.

THIRTEENTH DISTRICT.—M. P. OVERHOLZER, Harrisonville. Counties: Jackson, Cass, Bates.

FOURTEENTH DISTRICT.—A. R. SNYDER, Joplin. Counties: McDonald, **Berry,** Newton, Jasper, **Lawrence, Dade, Barton, Cedar, Vernon.**

FIFTEENTH DISTRICT.—Counties: **Hickory, Stone, Taney, Greene, Christian, Dallas, Polk.**

SIXTEENTH DISTRICT.—DR. R. L. JOHNSON, Rolla. Counties: Phelps, **Pulaski,** Laclede, **Webster, Ozark, Dent, Texas, Wright, Douglas,** Howell, **Oregon.**

Counties in bold face type not yet organized.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

VOLUME I.

DECEMBER.

NUMBER 6.

ORIGINAL ARTICLES.

GUNSHOT WOUNDS OF THE INTESTINES: A CASE OF DOUBLE RESECTION AND ANASTOMOSES WITH MURPHY BUTTON AND CONNELL SUTURE; SPECIMENS.

BY WALTER C. G. KIRCHNER, M. D., St. Louis, Mo.

The subject of penetrating wounds of the abdomen has received a good deal of attention during the last few years, and those who have had ample opportunity of meeting with this class of emergency work are practically unanimous as to the general lines of treatment. With a better understanding of the nature and consequences of penetrating wounds of the abdomen, and with improvements in surgical technique and the management of such cases, the mortality rate has been considerably reduced. When physicians in general will have awakened to the seriousness of penetrating abdominal wounds, and when immediate operation will be the rule, we may hope to have still greater success in the treatment of such cases.

Regarding gunshot wounds of the abdomen, I had occasion to operate on a case which came to the City Hospital, and which proved to be interesting in a number of respects. In the first place, owing to the large number of perforations of the intes-

tines and mesentery, it was unusual; secondly, there was extensive bowel resection; thirdly, there were two resections at one operation; and fourthly, the case was one in which the utility and comparative value of the Murphy button and the Connell suture were well illustrated. The history of the case is as follows:

History.—The patient, John I., colored, age twenty, jockey by occupation, was admitted to the hospital May 5, 1903, with diagnosis of gunshot wound of the abdomen. In his habits he was moderate, and he lived a regular life. One brother was said to have died of hæmorrhage, but no definite family history of tuberculosis could be obtained. He had had gonorrhœa and syphilis. It was also learned that he was subjected to pulmonary hæmorrhage, and four months before entering the hospital he had an attack of pneumonia. The patient was accidentally shot by a friend with a .32 caliber revolver, the bullet entering the lower part of the abdomen

near the median line in a direction downward from right to left. As soon as possible the patient was sent to the hospital.

Examination.—The patient was of slight stature and was well formed. Nothing abnormal was noticed about the chest except the presence of a few mucous rales. There was no abdominal distension, and on percussing the lower part of the abdomen a flat tone was elicited; pressure here was painful, especially so, just below the umbilicus. When first received the patient was somewhat in shock, and his pulse was weak and rapid. He felt drowsy and apathetic, and when undisturbed was not in pain. He had not vomited nor was he even nauseated.

The bullet wound was situated about halfway between the pubes and umbilicus, and was a little to the right of the linea alba. The case was prepared as for laparotomy, the contused and dirty margins of the wound were trimmed, and the wound was probed with a sterilized finger. Penetration of the abdominal cavity was found to exist, and the distended bladder could easily be felt. When catheterized, clear urine was obtained. Preparations for laparotomy were made at once.

A median incision about four inches long was made below the umbilicus. The peritoneum was found bulging, was dark in color, and when incised a great quantity of blood gushed from the abdominal cavity. The presenting loop of intestine was delivered through the wound, examined, and in close proximity four perforations and two severe bruises of the intestine, and a bad laceration of

the mesentery were found. The bleeding mesenteric vessels were ligated, and about eight inches (20 cm.) of the injured intestine resected. The mesentery was severed as close as possible to the intestine, and end-to-end anastomosis was here made with the use of the Murphy button.

Lower down along the intestine more perforations were found, there being a limited area, ten perforations and six severe bruises of the intestine and five perforations of the mesentery. The bleeding mesenteric vessels were ligated, and nearly three feet (85 cm.) of intestine were resected. The mesentery was here likewise severed as closely as possible to the intestine. An end-to-end anastomosis was made, using the through and through stitch as recommended by Connell. In each instance the cut margins of the mesentery were laid side by side, and were whipped over with fine silk suture. Care was also taken to strengthen the mesenteric portion at the site of anastomosis.

The entire small bowel, the ascending and descending colon, and the sigmoid flexure were examined in a systematic manner, and no further perforations were found. The abdominal cavity was flushed with several gallons of saline solution, and numerous clots and fecal matter were thus removed. Gauze drains were placed into the right and left iliac fossæ, a third behind the bladder and a fourth under the sutures of the abdominal wound. Closure of the abdominal wound was made with through and through silkworm-gut sutures. The operation lasted an hour and a half. The patient had received stimulation of strychnine and hypodermoclysis

of saline solution. He took the anesthetic well, and, although his pulse was very weak, he soon rallied after the operation.

Post-Operative Course and Treatment.

—In the post-operative treatment it was desirable that the patient be kept quiet, that drainage from the abdominal cavity be promoted, that the wound be properly treated, and that the intestinal track be kept clear and free from distension by gases.

Shortly after the operation the patient was very restless, and this condition was met by the administration of morphine. For abdominal pain and for the moderate distension of the abdomen, the hot saline pack was found to be of some service. After the first two days the patient became controllable, and after the first week the patient was permitted to roll from side to side in his bed and enjoyed considerable freedom.

Drainage of the abdominal cavity was promoted by the Fowler posture, namely, by elevation of the head of the bed. The drains were loosened and gradually withdrawn, and with daily dressing the drainage was complete, and at no time was it purulent in character. The wound was kept perfectly clean and drains and sutures were removed by the ninth day.

The management of the intestinal track was an important feature. All nourishment by mouth was withheld. Rectal feeding was started on the day following the operation, and alternately every three hours. The patient received nutriment and saline enemas. Even water was not given regularly by mouth until the ninth day. The giving of enemas in this case caused but little rectal irritation, and it was

interesting to note how the patient's appetite was appeased by the rectal feeding.

For the most part the abdomen remained perfectly flat and was seldom tympanitic. The patient's bowels moved regularly, and at no time was it necessary to give a laxative. The Murphy button was discharged on the fifteenth day, having passed over the Connell suture in its course. The patient was now placed on a liquid diet, and rectal feeding was discontinued.

The patient occasionally complained of a cough, and on the evening of the fifteenth day he had a severe attack of pulmonary hæmorrhage from which, however, he soon rallied. On the seventeenth day the patient, being convalescent, the case was presented before the Medical Society of the City Hospital Alumni, and he seemed none the worse for the experience. On the morning of the nineteenth day, the patient, while asleep, had a second attack of pulmonary hæmorrhage, from which he never recovered. The urinalysis showed the presence of albumin on the first day, but the findings afterwards were always negative. Except when suffering from pulmonary hæmorrhage, the patient's temperature, pulse and respirations were practically normal.

Autopsy.—On opening the abdomen it was found that in places adhesions had been formed between the intestines and the peritoneal portion of the surgical wound. There was no peritonitis. A search for the anastomosis was made and not being able to definitely locate the repaired portions of the intestines, they were removed *en masse* for future examina-

tion. The left lung showed emphysema; the right lung was congested, firm and the bronchi with their smaller ramifications were filled with blood and clots. In the area of greatest congestion there was a small cavity which in all probability was of tubercular origin. The other viscera were practically normal, and the diagnosis of pulmonary hemorrhage was confirmed.

Specimens.—In the resected portions of intestines there were fourteen perforations, and eight severe bruises of the intestines and six lacerations of the mesentery, there being a total resection of about three and a half feet of intestines.

The anastomosis by means of the Connell suture was in the small intestine about three feet from the ileocecal valve. At its location there was a mass somewhat smaller than an English walnut, which resulted from the contraction of the severed mesentery. The cut margins of the mesentery had contracted until they formed a surface but three-quarters of an inch in length. At this location the intestine, with the line of action in the elbow, became folded upon itself as if to straddle the raw and cut surface of the mesentery, and in this position adhesions took place, which firmly united the intestine to the raw surface. By this process there was considerable overlapping, or folding of the intestine upon itself, and owing to the adhesions which formed, the effect was that of very extensive tier or layer suturing. Over the line of union of the intestine, in great part, the peritoneum was smoothed, but near the mesentery detachment, adhesions had formed.

For the purpose of microscopic examination and for an understanding of the inner portion, the intestine was incised in the direction of its axis and through the line of union. It was noticed that a diaphragm about 2 mm. across was present and extended in a circle around the inner portion of the gut, except near the mesenteric attachment where it was deficient. The lumen at the union of the gut was sufficiently large to permit the passage of a large-sized Murphy button, and easily admitted the tips of four fingers. Upon closer examination it was found that the union was mostly by the peritoneal approximation, and was strongest at the exposed or irritated portions of the peritoneum, *i. e.*, at the cut margin, and at the peritoneal approximation at the elbowing or turning in of the intestinal coats occasioned by the tying of the sutures. The union between the peritoneal layers of the diaphragm itself was not firm. The specimen shows two loose sutures still remaining.

The anastomosis by the use of the Murphy button was also in the small intestine and was about ten feet from the ileocecal valve. The outer surface of the union was nearly everywhere smooth, and the location of the anastomosis was only found by a thickening of the mesentery at the site of anastomosis. The intestine was here also opened for examination of the interior. The line of union could best be made out by transmitted light and was very narrow. The union consisted in a narrow band of connective tissue, which ran parallel with the folds of the mucous membrane uniting the peritoneal layers.

There was absolutely no diaphragm. In places over the line of union the mucous membrane was continuous.

The specimen also shows a contused area that was left intact at the time of operation. This is an important observation, because it teaches the surgeon how dangerous even contusions, if overlooked, may be, since in this case the result of injury shows itself even after eighteen days, while the healing process at the point of anastomosis showed healthy tissue.

I have gone more or less fully into the details of this case, because they illustrate certain points in regard to the treatment of penetrating abdominal wounds. The symptoms of penetration are so various that often no definite clue may be obtained. A patient having a penetration of the abdomen with injury to viscera may have no symptoms at all. In other cases the signs and symptoms may be pain, vomiting, anæmia, rapid and weak pulse, collapse, abdominal distension, bloody urine, etc. However, regardless of symptoms a diagnosis of the condition should be made and under aseptic conditions the wound should be explored by dissection or by probing with the sterilized finger. If necessary an anæsthetic should be given for this purpose though this is very seldom required. When penetration of the abdominal cavity has been demonstrated, immediate laparotomy should be insisted upon.

The prognosis without operation is very grave and cases usually die of peritonitis, hemorrhage or shock. The prognosis after operation depends not only upon the nature of the injury, but also upon the time that has elapsed after the accident. Cases that

permit of an early and quick operation offer the best prognosis.

The treatment in brief consists in immediate operation, the control of hemorrhage, systematic search for injury and its repair, cleansing of the abdominal cavity and drainage if the peritoneum has been soiled.

In perforation of the intestine or stomach unless drainage is wisely employed peritonitis and death usually result. It should be remembered that drainage seeks the dependent portions of the abdominal cavity and collects in the fossæ and depressions. and that with the patient in the Fowler position the pelvis in particular should be well drained. Gauze wicks or tubes may be used for this purpose, but when tubes are used it is essential that the accumulated secretions be actually removed by suction or otherwise. If the incision is above the umbilicus and if the upper portion of the cavity has been soiled, it may be well to place drains under the liver and in the splenic fossa; if drainage here is found unnecessary the incision may be entirely closed, and, as advocated by Dr. John Young Brown, a drainage tube may be placed into the pelvis through a stab in the lower portion of the abdomen. Experience has shown that while the upper portion of the abdomen may be perfectly clean, the pelvis will often contain blood clots or infectious matter. It is well always to place a drain at the site of the original injury.

In recent cases, having thorough drainage in view, nothing is quite so efficacious in removing infectious matter as *copious* flushing of the abdominal cavity with sterile saline solution. Fecal matter, particles of

food, blood clots, clothing, etc., that are often remote from the seat of injury and field of operation may by this means be removed. Saline solution in the abdominal cavity lessens shock, stimulates the heart, causes a leucocytosis and hastens the production of plastic material, and greatly lessens the thirst after the operation.

The post-operative treatment is much the same as is usually instituted in laparotomies. Best results are obtained with the patient in Fowler position, thorough and complete drainage, and saline nutriment enemas, at least for the first few days. Opiates should not be given indiscreetly and laxatives may be indicated after the first day. Cardiac stimulants may be necessary when the pulse is weak, but hypodermoclysis of physiologic saline solution will usually meet this condition.

In conclusion we may state that the case is interesting as one illustrating multiple and extensive injury to the intestinal tract, there being twenty-eight indications for surgical interference, which, however, were met by resection in two places.

That, as illustrating multiple resection at one operation, the case is rare, and to my knowledge it is only the second case in which a Murphy button was discharged over the Connell suture. (Dr. Louis Rassieur has had a similar case in his experience.)

That in cases of serious injury to the intestine or mesentery, resection is safer than repair of the injury.

That large portions of the intestine, especially of the ileum, may be re-

sected with comparative safety, and the tendency to shock is less if the mesentery be severed near the intestine, and that then also the danger of gangrene of the intestine is lessened.

That it is advisable to cover all raw surfaces with peritoneum.

That, as illustrated by the repair at the Connell suture anastomosis, it is best when repairing the intestine with the Lembert suture to lay the line of sutures in a direction around the intestine, and that then extensive tier suturing can be made and yet leave the lumen large enough for the passage of the intestinal contents.

That in end-to-end anastomosis both the Murphy button and the Connell suture are useful as a means of intestinal union.

That of the two methods the Murphy button gives the more desirable results, and does not leave a diaphragm.

That the Connell suture when properly applied leaves the lumen of the intestine sufficiently large for the natural performance of digestive function.

That in the Connell suture the resulting diaphragm should be just sufficiently large to retain securely the sutures, and the cut margins should be carefully approximated to facilitate and insure prompt union and thus prevent separation of the two layers of the diaphragm.

That even bruises of the intestines and mesentery should be considered as serious, and that it is safer to repair such injury than to run the risk of gangrene of the affected portion.

A PLEA FOR EARLY EXPOSURE OF THE MASTOID ANTRUM AND CELLS IN PERSISTENT ACUTE OTITIS MEDIA PURULENTA WITH PAIN.

BY J. C. BUCKWALTER, M. D., of St. Louis, Mo.

In our otologic practice there is no condition requiring more exact judgment, skill, and foresight than the diagnosis and treatment of acute otitis media or earache. This is especially true in cases where the pain continues for several days or weeks with more or less constancy and persistency, alleviated only by powerful analgesic measures. Where applications of heat or cold or depleting by the artificial or real leech brings some relief for a brief period only; where spontaneous perforation or free incision of the drum membrane brings nothing but continued or even aggravated pain; where there may be little discharge or there may be a profuse flow of sanious sero pus of a light yellow, thick, inodorous; where on inspection the drum membrane has the appearance as though it were being forced outward; where the upper part of the drum, or Schrapnell's membrane, is bulging, as is the posterior wall of the auditory canal; where the intense vascular tension of the middle cavity is marked by the pulsations transmitted to the fluid walling up the opening in the tympanum and that in the canal.

Undoubtedly many have observed that in adults an ear affection of this nature is always a condition of more serious moment than it is in children or infants. The reason is perhaps due to the difference in the anatomic structures of the middle ear cavity, the mastoid attic, antrum, and cells.

In adults the middle ear cavity, the attic, the antrum and mastoid cells are roomy, and the communication between these various cavities is more accessible than in children and infants.

The rapidity with which an infection of the middle ear space in adults spreads to surrounding parts is often marvelous. The progress of this invasion may be so rapid and the objective symptoms, namely: tenderness, redness, and swelling may be absent or so slight that they act as no criterion pointing to the gravity of the condition. Before one can realize it the whole mechanism of the middle ear cavity is a mass of pus, necrotic tissue and exuberant granulations. These granulations show nature's efforts to stay the onward march of the infective invasion. A condition of this kind, which is only five to seven days in developing in adults, usually takes much longer to develop in children, and in the latter all the symptoms are so marked that the nature and extent of the trouble is easily determined.

The cortex or outer plate of the mastoid bone in adults is very thick, hard, ivory-like and difficult to chisel or trephine, while in the young the cortex is thin, soft, and pervious. From the nature of the outer bony structure it is clear how in adults the ravages of an extensive inflammation and virulent infection can become without the slightest external indica-

tions or signs showing that any marked pathologic changes are taking place within the bone itself. In the young, where the inflammation and infection is at all severe, the cortex is invariably perforated. There is a periostitis, and we have plainly before us a picture of mastoiditis.

How difficult, then, to know in cases of prolonged earache whether one is dealing with an otitis media or a mastoid abscess with brain complications. There may be no characteristic pain of impending brain involvement; the pain may be confined to the middle ear, but when dashes of pain radiate to the temporal, to the occipito-parietal tempero-parietal, or frontal regions, dull, boring, tormenting, tantalizing, severe, shooting or neuralgic, not even dispelled by stupefying drugs which produce only a broken unsatisfactory sleep, one may rest assured that he is dealing not only with otitis media but with concealed mastoiditis, and possible brain complications.

Indeed, there are often symptoms of cerebral irritation accompanying the mastoiditis. There may be vertigo, vomiting, extreme weakness, indigestion, constipation, impaired memory and slow cerebration. Temperature may be normal, subnormal, or high. The pulse may be slow, rapid or normal.

In all cases of persistent earache therapeutic measures must be vigorous, active, and rapid in succession. Attention given to the general condition of the patient. Antiphlogistics and counter irritants are in place; extremes in heat and cold; depletion by means of the artificial or real

leech; incision of the drum membrane. When the above fail to give relief the radical mastoid operation must be resorted to.

There are few conditions where therapeutic annihilation and procrastination is to be more deplored. The use of extreme heat or cold should be tried in each individual case. What may be a panacea in one case aggravates another. Thus the better rule to follow is to use that which gives most relief, irrespective of the stage of inflammation. However, in the early stages, extreme cold seems to give the better results, although, at times, one meets those who cannot bear extreme cold. While the ice bag or coil are invaluable in giving relief, some precautions must be observed lest the benumbing influence on the tissue is so great as to obscure and mask all symptoms. Many patients do better by heat, even in the early stages, and all cases in the later stages derive most relief from it.

The application of leeches often produces marvelous results in relieving congestion, inflammation and pain. We have access to either the artificial or real leech. In otologic practice the real leech is preferable, owing to the fact they are more easily applied, since it is not a simple matter to apply the artificial leech to the bony structures about the ear. In applying leeches, three or four should be applied along the mastoid bone immediately back of the attachment of the ear, two immediately anterior to the tragus, and allowed to remain until they release themselves gorged with blood. This measure often gives remarkable relief from

pain and causes a subsidence of the inflammation, sometimes aborting mastoiditis.

In a case where the tympanic membrane is perforated, but the opening is small, the membrane bulging, especially the upper posterior part or the region of Schrapnell, a liberal incision should be made, commencing at the lower border of the posterior half of the drum, passing upward through the flaccid membrane outward through the cartilaginous part of the canal three-fourths of a meter. The term paracentesis has no place in otologic nomenclature, since a liberal incision is the only operative procedure of any value.

It is oft-times extremely difficult to know when to advise a radical operation in these obscure conditions. It may seem unduly meddlesome to operate with no decided signs of mastoiditis, but one is justified in making a timely exposure of the cavities in every case of persistent pain. By so doing the ravages of this destructive infection can be lessened, the number of cerebral involvements avoided and many lives saved.

TO SUMMARIZE.

1. In adults an earache is a condition of serious moment from the beginning, and should be kept constantly under observation. Heed the warning of persistent or intermittent pain.

2. Even with none of the classical signs of mastoid involvements, the ravages of infection from acute middle ear trouble may threaten or penetrate the surrounding cranial structures with little or no warning.

3. Do not wait for classical signs

of mastoiditis. Given indefinite pains in the ear and head, advise the radical mastoid operation early.

I will report briefly a few cases:

Case 1.—One Saturday in March I was called upon to see a patient who had entered the hospital on Thursday.

Patient complained of having developed an ear-ache in the left ear three weeks before, following a bad cold in the head. After a week of almost continuous pain the ear commenced to discharge profusely, after which the pain was somewhat easier, but at no time absent. Eight days after the onset the pain extended to the left temporal and left frontal regions. On about the twelfth day the patient felt dizzy and it seemed difficult to retain equilibrium.

Status Præsens.—Age, twenty-nine; pulse, 120; temperature, 102; respiration, 16. Patient seemed stupid, answers slowly. Face has the expression of intense suffering. Eyes—External examination negative, ophthalmoscopic examination reveals beginning neuro-retinitis in left eye. Nose—Deflection of septum to the left, totally occluding the nostril. Throat—Negative. Ear—External canal filled with thick yellow, inodorous secretion. After removing the secretion, exposing the drum, a preforation the size of a pin head in the posterior part of the membrane was revealed. The membrane was bulging and extremely hyperemic with distinct pulsation to the secretion oozing through the preforation. Examination of the mastoid bone, no swelling, no redness, only slight tenderness in the mastoid fossa. Recommend that the antrum

and mastoid cells be opened at once. However, not until two days later was this done, and not until the patient was moribund was he placed upon the operating table.

On exposing the cells, antrum and middle ear cavity, we found them filled with pus and granulations. The operation was extended, the brain being exposed in the sphenotemporal lobe, resulting in the evacuation of a quantity of pus from the brain abscess located in this region. Patient died six hours after the operation. No post mortem.

Case 2.—November 3, 1903, Mr. S., age forty-eight, consulted me for earache in the right ear, from which he had suffered for the past three days. The pain, radiating to the right frontal and to the parieto-temporal region, is so intense that he has not slept for three nights.

Status Præsens.—Inspection of the ear reveals the drum membrane hyperemic and bulging, especially the posterior and upper parts. Does not hear watch in contact. Pressure over the mastoid elicits no pain or tenderness. There is no swelling or redness over the mastoid bone or process. No pain in the mastoid region. Temperature, 99; pulse, 96.

Incision of the drum allowed the escape of a small quantity of sanious fluid; a few hours later the secretions became more purulent and thick in consistency.

The operation gave some relief for a few hours only. A few hours of broken sleep was induced by trional and phenacetine. During the three days following, leeches, hot and cold applications gave little relief. Analgesics and soporifics were diligently

used, giving only partial relief. On the third day after being consulted, or six days after the onset, I noticed a slight facial paralysis, and symptoms of cerebral irritation developed, with difficulty in locomotion, vertigo (of objects revolving), slow cerebration and impending failure of memory. On the evening of the sixth day patient was sent to the hospital. On the afternoon of the seventh day I performed a radical operation, converting the middle ear, attic, antrum and cells into one cavity. The entire pneumatic space was a mass of granulating tissue.

The following day the facial paralysis was still more marked. After the operation the patient slept some during the night, but still complained of some pain, which disappeared at the time of the first dressing, forty-eight hours later.

At the time of writing I have not seen the patient for four weeks, but when last seen the palsy had nearly disappeared. The galvanic and Faradic currents were used on the face every other day. At no time in this case did the temperature go above 99. At the time of the operation the temperature was 98.4; pulse, 96.

Case 3.—February 21, 1903. Miss F., age thirty-nine, complains of having had the grip for the past week, accompanied with hardness of hearing in both ears; also stopping up of the nose, especially the left nostril. Last evening the left ear began to ache, continuing all night.

Status Præsens.—Inspection of left ear shows the membrane exceedingly congested and bulging. A liberal incision was made upward through the posterior half of the membrane and

through the flaccid membrane. Free bleeding followed; later a sanious fluid, and the next day a muco-purulent yellow inodorous secretion filled the auditory canal. Temperature varied from 99 to 101 during the earlier course of the disease; during the latter stages the temperature remained between 102 and 104; pulse, 98 to 130. The pain subsided until the seventh day, when another incision of the drum was necessary. During this stage at times dull pain was complained of in the occipital, frontal and parieto-temporal regions. During the following ten days different therapeutic measures were pushed. Symptoms varied, with profuse discharge from the ear and more or less pain in different parts of the head and in the ear.

At no time were there any signs of mastoiditis until the seventh day, when there was slight redness and tenderness at the extreme tip of the mastoid process.

The radical operation had previously been advised, but withheld. However, now an operation was insisted upon, and on March 10th the radical operation was performed. The whole mastoid region was laid wide open, this being necessary in order to eradicate the masses of granulating tissue and inflammatory products.

After the operation all severe symptoms subsided until about the eighth day, when I noticed a slight facial palsy, and the patient complained of slight pain in the occipital and parieto-temporal regions, left side. Temperature varied from 98.4 to 100; pulse, 78 to 99. Up to the fourteenth day after the operation the patient improved fairly well. Recuperation,

however, was not as rapid as one would expect, still, on the fourteenth day the patient had been up all morning, and at one o'clock when the wound was dressed made the remark that she was feeling very well. At five o'clock that same afternoon the patient suddenly became nauseated, dizzy, and vomited. In fact, all symptoms of brain complications developed. They grew from bad to worse. Two days later the lateral sinus, and the spheno-temporal lobe and fissure were exposed. Nothing definite was learned from this operation, aside from the fact that there was some inflammation of the meninges. Two days after exposing the brain the patient died. A post mortem examination was not granted.

Case 4.—Miss M., aged fifteen, complains of ear-ache in the right ear much of the time during the past three weeks. Often in the night the patient is awakened by a severe pain in the head, which keeps her awake several hours. The ear has been discharging from the beginning of the trouble.

Status Præsens.—General condition of the patient is bad. She has that cadaveric appearance often observed in septic absorption. Temperature, 100°; pulse, 96. Inspection of the ear revealed the external auditory canal filled with thick, yellow, offensive secretion. After cleaning the canal, inspection revealed half of the drum gone. The upper or posterior wall of the auditory canal appeared boggy and swollen. Pus constantly oozes from the middle ear cavity. Not the least sign of mastoiditis could be elicited. Treatment of the general condition and local treatment to the ear gave little relief. On the fourth

day after the consultation an operation was advised and consented to. The radical mastoid operation was performed. The outer mastoid cortex was extremely thick, hard, and difficult to chisel. When the antrum was reached this was found filled with granulating tissue; also considerable granulating tissue was scooped out of the cavity forming the petrous portion

of the mastoid bone. The mastoid cells were not involved to any extent, but the attic and middle ear cavities were gorged with pus. After evacuating these cavities the patient made a rapid recovery. The wound was allowed to close and the patient dismissed six weeks later.

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RENAL TUBERCULOSIS.

By J. BLOCK, M. D., of Kansas City, Mo.

A review of the last decade's work in renal tuberculosis discloses a revision of the subject practically reversing many accepted notions and laws. The opportunities granted by a more enlightened pathology and bacteriology and the enormous increase in the surgical work on the kidney have both contributed to this change of view.

The bone of contention whether the renal tubercular affection was primary or secondary as applied to the uro-genital tract has only so recently met with a decision that it will be unnecessary for me to crave your indulgence in presenting what might be considered trite, if not threadbare.

Based upon a verdict favoring the former view the surgeon is now in position to be of positive service to mankind. He need no longer hesitatingly offer himself as a palliative apologist, but come boldly forward announcing his ability to radically cope with this dreadful scourge.

Were it equally possible to recognize the disease in its incipency, or even early in its progress, there could be no question as to the success at-

tending his efforts. Unfortunately this is not always easy, even with the more progressive practitioner unwilling to accept things for what they seem. When once, however, the idea becomes fixed that tuberculosis of the kidney often, if not always, is a primary affection the battle is half won, wresting this branch of the service, as it were, from the impossible in the therapy of consumption.

Early in the '90's, when I had the pleasure of following the acknowledged leader among the French in this specialty—the distinguished Prof. Guyon—it was still his unqualified dictum that the kidney lesion was always secondary to an affection below; that uro-genital tuberculosis primarily situate in the bladder with an accompanying involvement of the genital adnexa became an ascending disease through infection by continuity. Based upon an acceptance of this theory and a general belief in its truth, it is easy to understand why that period was as fruitless of results as it is today in the treatment of the primary vesical disease.

A circumstance still further assur-

ing the aggressive surgeon is the now almost indisputable fact, that not only is the renal process often primary, but what is equally important, that it is generally unilateral. Thus, Israel has proven the absence of a symmetrical affliction in all but 11 per cent. of his cases. This conclusion is based upon post-operative necropsies and cure following nephrectomy. Furthermore, the unequal extent of the disease when bilateral suggested consecutive and not simultaneous involvement. The statistics of Vigneron showing a bilateral renal tuberculosis in about 50 per cent. of unoperated, as compared with 17 per cent. of operated cases, is but corroborative evidence of a subsequent encroachment upon the second organ in unrelieved instances of long standing.

Again, the formerly prevalent opinion that the presence of associated tuberculosis in the sexual adnexa necessarily meant a descending, or perhaps ascending, process is opposed by newer evidence, showing that both are homogeneous in origin and not inter-dependent. It is true that Guyon and many others taught that a vesical, or urethral, tuberculosis is almost always associated with a more or less involved sexual apparatus, though the converse was not insisted upon, and yet I have under observation an instance in which all divisions of the sexual system are symmetrically diseased, the urinary tract remaining intact in its entirety. These apparent vagaries will no doubt be compassed under some general law as our observations increase and the knowledge of tuberculosis in general advances.

In a general way, excluding, of course, an acute miliary process, renal

tuberculosis may be classified anatomico-pathologically under three heads.

First, the caverno-caseous form; second, an ulcerous form limited to one or more papillæ, and third, a tuberculous form resembling the acute miliary type, but distinguished from it by its chronicity, size of the tubercles and its unilateral presence. This is the classification of Israel.

The first is not always easily distinguished, especially in the later stages from an ordinary pyonephrosis. The foci involving the parenchyma generally abound about the corticomedullary borders. Breaking down, they coalesce often communicating by an ulcerating process forming abscesses of varying size situated at different levels from the surface, irregular in contour with ragged surfaces covered with projecting granulations.

In their progress, owing to the pressure effects of their contents, they may approach some regularity in size and lose the characteristics distinguishing them from the ordinary pyonephroses.

Progressing peripherally a focus penetrates the capsule involves the perirenal fat, forming dense adhesions between the capsular investments and the surrounding structures, gradually immobilizing the organ. This is of much diagnostic importance, my own experience showing that the emphasis which Israel calls attention to this feature should not be disregarded. Not only does the organ fail to participate in the respiratory movements upon palpation, but it remains rigidly fixed even after division of the abdominal wall.

Sometimes a large sclero-lipoma-

tous mass leaves a veritable tumor, even after nephrectomy and in not a few instances the removed organ is even smaller than normal. This perinephritic encroachment may be direct by contiguity, due to a fungus-like propagation, gradually spreading in the fatty capsule, or it may extend as an inflammatory process through the lymph spaces. Finally, a suppurative process, indistinguishable from an ordinary perinephretic abscess may mislead the operator. Believing his duty discharged with its evacuation, he subsequently finds a fistula, communicating with the original focus, to convince him of his error.

This sclerotic process is not confined to the capsules. It involves the ureter, which becomes enormously thickened and correspondingly shortened and rigid and its lumen often reduced. This may be due to a secondary infection. Should it be tubercular, however, the mucosa reveals the cause in an ulcerative process more or less extensive.

All of the previously described processes are beautifully illustrated in the specimens before you.

The papillary form, often confined to one papilla, may consist of a shallow, irregular ulcer of a roughened or warty appearance, covered by a yellow exudate. This accounts for the copious and continuous bleeding resembling those due to a neoplasm.

The tuberos type, spreading along the straight tubules like a string of pearls or projecting from the cortex in irregularly rounded plaques about a simulating central infarct, very much resembles the ordinary surgical kidney.

Finally, there may be a polar tuber-

culosis, with the process actually limited to an extremity, accounted for by a vascular anomaly from either the renal artery or aorta separately supplying the district without inosculation.

Of the three processes, the caseo-cavernous (either disseminated or limited to a pole), and the papillary, only are amenable to surgical treatment with any hope of success. The tuberos form means a rapid process, soon invading other viscera even after nephrectomy.

Statistics seem to show that the malady is most prevalent between the ages of twenty to forty, though I have operated upon a boy of less than ten and a male at fifty-five. That sex seems to exercise a preponderating influence is shown by a percentage of nearly seventy in favor of the female.

Unfortunately, the clinical phenomena usually attending a tubercular renal process reflect themselves in irradiated vesical symptoms, misleading clinician and patient alike. Thus the treatment is directed to the mitigation of the symptoms, owing to the insistence of the one and the indifference of the other.

Operating upon a male a short time ago I found that for several years he had been the recipient of various bladder treatments under the misapprehension that he had a chronic cystitis, and that too from a very clever surgeon. Another, a young female, suffered only from a species of incontinence for five or six years, for which the customary remedies had been exhibited, and only four months prior to coming under observation had more urgent and serious

symptoms awakened the suspicion of something more formidable. By this time the immobilized tumor filled nearly half the abdomen. Again, I once attended and operated upon a young boy reduced to a bed-sore skeleton, with the left kidney filling nearly half the abdomen, where a perineal boutonniere, done some months before and still patent, revealed a partly pardonable error, so urgent had been the vesical symptoms.

Those familiar with the clinical data of urogenital pathology realize how commonly the cardinal symptoms of hæmaturia, dysuria, pyuria, polyuria and pollakiuria are shared by a variety of affections totally dissimilar. No wonder that the unwary are easily misled. It is only by a careful scrutiny and a surveillance of the sequence, duration, frequency and intensity of these phenomena, *plus* the aid of physical examinations, including those refinements obtainable with instruments of precision, that we can arrive at fairly definite conclusions. I would not have it understood that an absolute reliance is to be placed in the more modern appliances to the exclusion of our trained senses. The former have their limitations, and, exclusively employed, may prove humiliating in results to those wedded to their use. Equally disappointing will be the refusal of those obstinately ignoring the utility of our modern armamentarium.

In most cases the incipency of the trouble is announced by a slight increase in the number of micturitions, generally nocturnal, with or without a slight dysuria or burning sometimes during or at the end of mic-

turition. Sometimes this desire to urinate may be imperious, as in the female patient just instanced, where it amounted to a practical incontinence. This has been variously ascribed to an altered urine passing over the bladder mucosa or to a nervous irradiation from the kidney to the ureter or bladder. Occasionally only the pain is referred directly to the kidney, especially during urination. In the later stages the dysuria and frequency may mean a vesical intolerance due to a descending tubercular process reaching the ureteral ostium.

The urine may be macroscopically clear in the beginning, usually, however, it is slightly turbid owing to the presence of leucocytes. It is generally acid and only slightly increased in amount corresponding to the frequency. A polyuria may develop later owing to sclerotic changes in both the afflicted and the opposite kidney, and unless the second become involved in either the tubercular process, or undergo amyloid change owing to protracted suppuration, the amount of albumin is small, perhaps half part per thousand. Casts are seldom present.

In the early history hæmorrhages are not infrequent, though of short duration and often only microscopically determinable; where the seat of the disease is papillary this may be copious. Sometimes a decided though short hæmorrhage with a renal colic due to a congestive process and similar to an hæmoptysis may be an introductory phenomenon. The later renal colics are generally indicative of an obstruction in the ureter which may disappear with its removal. These colics often disclose their causal

relationship by an increased renal swelling and diminished pyuria during the attack, succeeded by inversed proportion during their abeyance.

To assume that bacilli are always present merely obscures the diagnosis. This is one of the limitations mentioned when referring to the preciser methods now added to our ken. In the vast majority of cases, with the disease limited to the kidney they are absent. When once the ureter and bladder become involved the majority reveal the pathogenic micro-organism.

Perhaps a more extended employment of the cultural methods, tuberculin or animal injections, will extend the scope of diagnostic possibilities.

With a renal limitation, cystoscopy may show a swelling about the ureteral orifice on the affected side. With a descending process added the swelling is replaced by a circumferential miliary projection about the ostium with or without ulceration. This limitation of the tubercles is of great differential value and importance, determining at once its secondary nature and the probable freedom of the opposite kidney. When the affection is primarily vesical it is more diffuse and apt to begin about the internal urinary meatus. Owing to the thickening and shortening of the ureter in the more advanced cases a funnel-like retraction substitutes the papillary projection usually present at the ureteral orifice.

In the more advanced cases, especially in reduced subjects, palpation reveals an immobilized tumor in the corresponding flank. Early this is not always an available means, for the enlargement is not always great.

It seldom exceeds double the normal size, and it may be well buried in the diaphragmatic vault. Yet I have operated upon several patients where the tumor extended to and beyond the crest, and even to the venter of the ilium, with a lateral encroachment beyond the median line, and in one instance the amount of pus was too small to account for this enormous enlargement alone.

An important feature not to be overlooked is vaginal or rectal touch. This renders the thickened tube palpable, should the ureter be implicated.

These patients, though generally, are not always reduced in flesh, depending very much upon the chronicity of the affection, the presence of fever, due to the absorption of septic materials, with associate inappetence or diarrhoea. They are always anæmic, however, the hemoglobin reduction amounting to as much as 50 per cent.

With an involvement of the bladder there is greater opportunity for the absorption of septic materials coming from above, and there may be a regularly intermittent or irregular pyrexia, with or without diaphoresis. In a case recently operated upon, which, from the large quantity of pus present, resembled a retention cyst, the temperature was oftener sub than above normal.

Though it may occasionally happen that a renal tuberculosis is strictly primary, *i. e.*, protopathic, in its relation to the general economy, yet in a larger number of instances it is deuteropathic, evidence of a cured or latent tubercular process elsewhere being found upon closer scrutiny. Bone or joint affection, cervical glandular enlargements, scars or abscesses,

not to speak of slight pulmonary deviations, may enrich our knowledge.

To enter into every particularity of diagnosis differentiating this from other kidney affections would lead me beyond the intended scope of this paper. A proper appreciation of the items as presented in the synoptical clinical picture, however, would prevent one going astray in the majority of cases.

With the idea of a renal tubercular process well established in mind, there yet remains the possibility of our extending our information to the condition of its fellow. Our decision to interfere may depend upon this solution alone.

Generally speaking, the opposite kidney may be, if at all implicated, the seat of a beginning or advanced tuberculosis, an amyloid or sclerotic process, and, what is most frequent of all, engaged in a septic contest, the burden of eliminating the depraved materials engendered upon the involved side resting almost, if not solely, upon it. This has been aptly termed a toxalbuminuria, curable by removing the cause.

Can we, however, with any degree of certainty, pronounce upon the condition of the opposite organ and the extent of its involvement? Can we always accept our findings as confirmatory or prohibitory indications for surgical intervention? Experience grants an affirmative answer in the majority of cases appealing for decision.

Suppose the bladder is still sufficiently tolerant to admit a cystoscopy and ureteral catheterization. A segregation will yield fairly accurate results. That this is not always pos-

sible, either under local or general anæsthesia, I must admit, for I have seen the apparent vesical capacity, or rather tolerance, reduced to a few drams.

The presence of a small quantity of albumin, perhaps a few hyaline casts, and the absence of bacilli, would speak for a form of nephritis common to many infections or fevers. Generally speaking, they are benign, undergoing resolution upon removal of the cause. Suppose, however, that the albumin be large in amount, with a low gravity and pronounced polyuria, it might suggest an amyloid degeneracy prohibitive in its declaration, and yet this is not always certain.

Urinary segregation being impossible, we are thrown upon those natural resources which in their application call for that acumen and judgment distinguishing one practitioner from another.

Thus without local subjective or objective signs suggesting a transfer of the infection by an ascending process to the opposite side, carefully determining the urinary sufficiency, taking into account the albumin allowance for the pus present and not assuming that it is all contributed by the newly involved organ our conclusions will be fairly accurate.

As Israel says, it is better to accept some risk even when the urinalyses segregate or collective seem to contraindicate interference—for their teaching is subject to fallacy—rather than withhold the benefits of an operation from many a good case.

That some of the newer methods, such as Koryani's cryoscopy for determining the blood and urine freez-

ing points, or phloridzin injections, may be eventually available as arbiters in this delicate question I am quite willing to concede, but greater experience alone can tell. These methods, too, require more than the average skill in their application and should be left to those specially qualified.

Nor will we be obliged to refrain from interference even in the presence of a localized vesical tuberculosis, experience proving a post-operative involution possible.

Finally, despite the high mortality, either immediate or remote, attending nephrectomy, should we abstain? Practically every case will succumb after years of invalidism and suffering if left to its fate. Suppose the operative and post-operative fatalities reach 30 per cent. or more, should we deprive the remaining 70 per cent. of the benefits of surgery?

Unfortunately, judging from my own experience, most of these cases are reserved for surgery as a dernier resort. Could they be made selective by an earlier diagnosis and prompt intervention the immortality could be reduced by half.

Assuming that interference is feasible, what is the best method of attack?

Without denying that tuberculosis here, as elsewhere, may undergo spontaneous cure, or at least become latent or innocuous, it certainly would be foolhardy to trust to this chance.

Are there any local or general measures in which we can have sufficient confidence to warrant a trial? What is there to be accomplished, even early in the case by antiseptic lavage through the ureteral catheter, even in

the hands of those skilled in its use? Nothing, even if we would not take into account the dangers of infecting the opposite tract.

Where a pulmonary tuberculosis amenable to operative surgery pneumonectomy would be preferable to the uncertainty of general or local treatment, no matter how ingenious the device provided for in its application. With an organ as accessible as the kidney and dispensable when the opposite is still functionally healthy, nephrectomy, either partial or complete, should unhesitatingly be accepted as the operation of choice.

I know that there are still those who believe that there is something to be gained by preliminary nephrectomy reserving a secondary nephrectomy for a later period when compelled to complete the work. From my own limited experience, I can only speak of it in condemnatory terms.

Twice I have approached the task in this manner, believing that the exigencies of the cases demanded the so-called conservative treatment, only to regret it. I did this, too, in spite of my own opposed feelings. I am sure as much could have been accomplished by complete work and with less risk. It meant two operations with two anesthetics and two shocks instead of one, and failed to achieve even the partial relief which had been hoped from it.

Remembering the many non-communicative cavities present so well illustrated in the specimens before you, the incomplete though bloody work necessary to break down these septa; or should one attempt to approach it with the hope of controlling hæmorrhage the necessity of mobilizing of

the organ so as to control the pedicle, all show the utter futility of the attempt. Yet the time consumed would be greater than for the average nephrectomy. And what is to be gained? The possibility of saving a few remnants of doubtful function. Again, abscesses between the organ and surrounding structures subphrenic or supra-psoas can only be successfully drained by a removal of the affected kidney.

Access to the organ is preferably obtained extra-peritoneally. The transperitoneal route increasing both shock and the danger of infection does not, as is claimed, increase the operating space. By making either a Bergman or Israel incision below the last rib forward from the spinal muscular mass it can be prolonged downward and forward from the flank parallel with Poupart's ligament to the rectus muscle, even including this in the incision almost to the median line when necessary, thus gaining space sufficient to expose and remove the ureter near its entrance into the bladder.

If possible the kidney should be removed with its investments, care being taken to avoid rupture of the

cavities lest specific infection ensue. Where the fixity of the capsule makes total extirpation impossible, subcapsular enucleation can be practiced, care being taken to prevent infection from the region of the pedicle, which is often so fixed as to interfere with proper ligation, thus including residual tuberculous material. The Paquelin, with retention clamps, may be resorted to to overcome this difficulty.

Either ureterectomy, with cauterization and inversion of the stump or its fixation in the wound, or a special buttonhole for its subsequent treatment, will be necessary to prevent fistula or later infection.

Nephrotomy with resection or amputation of a pole may be successfully resorted to in the papillary and polar forms.

A nephrotomy may replace nephrectomy where the condition of the patient forbids the latter to relieve pus retention or where it is known that both kidneys are involved. It may be of possible advantage, where the cavities are few in number and where they can all be brought in view for conversion into one, to be properly curetted and drained.

ILEO COLITIS IN CHILDREN.

BY W. S. WALLACE, M. D., of Excelsior Springs, Missouri.

My subject is a seasonable one at this time, as during this and next month we will meet with it more frequently than with any other disease of childhood, and if we are not always on guard it will claim more victims than will any other disease during July and August.

The season of the year points us to the etiology of this disease, probably the most important factor of which is extreme heat. In statistics taken from cases in the hospitals of New York city, it was found that the number of cases of "Ileo Colitis," together with the mortality, rose or fell in more or

less direct ratio with the temperature and atmospheric conditions, and even with us, situated as we are, the debilitating effects of the heated term, together with its effect on the decomposition of food, play an important part in the causation of this disease. Improper food, unripe or over-ripe fruit, copious draughts of ice water, everything which may act to hinder digestion or impair nutrition, acts in a causative relation.

The pathology of this disease has been the subject of many learned discussions, but I am persuaded that post mortems fail to give us an adequate idea of the intense congestion present before death. There is evidently at the beginning a swollen and congested mucous surface, which congestion increases until circulation being interfered with, necrosis and ulceration of circumscribed areas take place which may be superficial or deep, and which usually implicate the glandular structures in the walls of the bowel, the bowel is filled with an acrid, greenish fluid, in which floats fecal matter, shreds of mucous membrane, and may be blood and quantities of undigested food.

The ushering in of "Ileo Colitis," is attended by restlessness and pain, followed by vomiting and nausea, the temperature rapidly rises to 102 to 104 degrees F., bowels become tender and tympanitic, followed soon by alvine discharges more or less profuse. At first thin and watery, later becoming scanty, very frequent and composed largely of mucous, very small amounts of fecal matter and probably blood. The discharges are greenish color, usually all the way through the course of the disease.

The quantity of blood and the height of the temperature are usually in proportion to the depth and severity of the ulcerative process. As the disease progresses the little patient shows all too plainly how severe the tax is upon its vital forces by the rapid loss of flesh and great weakness. Under careful treatment the character and frequency of the stools gradually change, the fever falls and the appetite returns, and recovery is soon complete. Otherwise, the temperature remains from 101 to 102, vomiting and frequent bloody stools continue, emaciation is progressive, the dreaded brain symptoms appear, and before long death ends the scene.

It is my custom when called to attend such a case to at once withdraw all food for twelve to twenty-four hours, or until I have thoroughly cleared out the alimentary tract, and then to select the smallest variety and quantity of food consistent with condition, and if necessary, to pre-digest it.

Albumen water (the white of egg with water, a bit of sugar and a few drops of lemon juice).

Sterilized milk diluted with water, lime water, or carbonated vichy.

Bovine I consider one of the best foods, diluted with water, milk or grape juice, and especially as a rectal nutritive enema where the stomach is extremely irritable or digestion and assimilation poor, and later during convalescence, sterilized milk or malted milk.

I want to emphasize the fact that the matter of feeding is even more important than medication, and unless it is given the strictest attention you will often meet with failure where

you might succeed. Even the drinking water should be boiled and every precaution taken to prevent further infection of the already inflamed bowel. I have spoken of thoroughly emptying the prima via, and it is of the first importance. It is my custom to give a grain of calomel in divided doses with sodi bicarb. to be followed shortly by frequent small doses of Abbott's saline laxative, two tablespoonfuls in a glass of water and flavored with sugar and lemon, a tablespoonful of the solution to be given every half hour till effect. This once accomplished we can turn our attention to intestinal antiseptics, and of these we have a great number, but a few have proven so effective for me that I am partial to them—the salts of bismuth are among the first, the subnitrate or salicylate, but especially bismuth with resorcin and some of the acids of the phenol group, meet with my approval.

The sulphocarbolates of zinc, lime and soda I find effective where the stomach will retain it. Where the temperature is high the antipyretic and antiseptic effect of salol is sometimes desirable, but the important part is to select the agent you wish to do the work, and then push it to its full effect, give it frequently until the odorless stool and lowered temperature proclaim its effect, use as little of the old symptomatic plan of treatment as possible, study your little patient carefully, make up a clinical picture of its condition, decide definitely what you want to do, then do it.

I have not referred to fever and pain, checking the discharges, etc., because I try to so conduct my cases

that these symptoms will not be a factor in the case, but if they come in in spite of me I control fever by cool sponging, and if pain or excessive peristalsis is present it calls for a very minute dose of opium for the time being, but properly handled there is small need for this.

Report of a Case.—Baby B., sixteen months old (a girl), ordinarily well nourished, surroundings very poor and unhygienic, ten hours after eating three half-ripe apples, attacked by severe chill with vomiting and pain. I did not see her until four days after the attack; temperature was then $103\frac{1}{2}$; pulse, 120; respiration, 30; bowel tender and distended with gas; free alvine discharges of thin, greenish blood-streaked material, with much mucus; odor very offensive. There was great thirst, but water would at once produce vomiting. I gave at once calolactose, two grains dry on the tongue, repeated at one-half hour intervals till six doses were given; resorbisnol, six grain powder every two hours; ordered cool sponging until fever was reduced, and withdrew all food of whatever character. Called the next morning, twelve hours later, to find fever 100; pulse, 110; discharges less free but quite frequent and showing some evidence of biliary secretion but blood-streaked; vomiting had stopped. I ordered the saline solution referred to above, one chocolate-coated tablet every two hours, and there being some tenesmus I gave five drops tinct. opii camph, to be repeated in one hour till effect. At 4 P. M. her temperature was still 100, bowels very tender but less tympanitic; ordered the white of an egg in water every four hours, a small

amount; stopped the saline solution and continued intest. antiseptic one tablet every three hours. This plan of treatment was kept up, and on the fourth day of treatment there was added high colonic flushings and bovine given diluted, alternately with white of egg, with the flushings continued. The fifth day of treatment showed a normal tempera-

ture, and under careful feeding and regulation of bowels when needed with the old neutralizing cordial, this little patient went on to complete recovery by the end of the second week.

This, though brief, will, I hope, serve to give an idea of my plan of treatment of Ileo Colitis, which has furnished me most happy results.

CHRISTIAN SCIENCE—A CONDENSED REPORT OF THE LECTURE
OF DR. J. M. BUCKLEY ON CHRISTIAN SCIENCE, DELIV-
ERED AT THE AUDITORIUM OF THE YOUNG
MEN'S CHRISTIAN ASSOCIATION, ST.
LOUIS, MISSOURI.

Dr. Buckley stated that within the past sixty years many new religions or radical changes of religion had sprung up in the United States. He mentioned modern Spiritualism, which dated its modern form from the Fox girls, inhabitants of a small town in western New York named Hydesville. About the same time Mormonism arose. The third in order of time was Christian Science, so-called, and the fourth was Dowieism. It is interesting to notice that all these have a very strong commercial aspect, and all of them are closely connected with the healing of diseases without medicine. Spiritualism spread very rapidly, and it was claimed that in less than fifteen years there were more than one million who acknowledged their belief in the supernatural character of rappings and other manifestations. Since that time it has experienced a marked decline, and some critics are of the opinion that it has gone into comparative obscurity, because it is impossible for a community or a na-

tion to support two great general superstitions or fads at the same time. The Spiritualists say that a considerable part of those who would naturally affiliate with their views, have become Christian Scientists.

The proper name for Christian Science is Eddyism. Calvin stands for a special view of Christianity which is described as Calvinism; Arminius opposed the views of Calvin, as his system is known as Arminianism; the reformation under Martin Luther is known as Lutheranism; by Wesley as Wesleyanism. Mrs. Eddy claims more originality than any of these, and exercises more alleged spiritual authority. Why should not her system be called Eddyism? Sometimes she calls herself the "founder," again, the "discoverer," of Christian Science, and she maintains that it was not known to the modern world until she appeared.

Dowieism and Eddyism agree in certain particulars; both make no use

of medicine and will not allow their devotees to use it, and both require complete subjection, and both have a truly marvelous skill in attracting or extracting pecuniary contributions for themselves and their enterprises.

One of the differences between the schemes of Dowie and Eddy is this; Dowie admits the reality of disease, and charges its origin to the devil, and says that Christ came to destroy the works of the devil, and that faith is the condition of healing, and asserts that those who use medicine cannot be healed, not having faith.

Mrs. Eddy denies that disease is a "reality," calls it a "delusion of mortal mind," does not connect the devil with it in any way and does not require faith, but "understanding." Simpson, of New York, agrees in theory with Dowie, except that he does not believe at all in Dowie's claims to be a special messenger of God, coming in the spirit and power of Elijah, the prophet of whom Moses spoke, or the first apostle. Dowie denounces Simpson without stint. Dr. Buckley then said that his lecture would be devoted to an investigation of the claims of Eddyism to be called Christian Science. He announced that he had one proposition that would certainly command the assent of all present, namely, Christian Science is either wholly true, wholly false, or partly true and partly false. This assembly doubtless consists of some who devoutly believe it to be wholly true, of others who conscientiously believe it to be wholly false and of still others who think there is something true and something false in it. Some of these think that they discern which the truth and which the falsity

in it are, others are not quite satisfied and find it something of a puzzle.

James Martineau is credited with this saying: "Every fiction which has at any time taken a strong hold of human belief is the mistaken image of a great truth for which the man of reason will search, at which the man of half reason will sneer as a superstition, and the man of unreason will believe." This statement does not cover the whole case, for many fictions consist of half truths, which half truths can hardly be called mistaken images of a great truth.

The lecturer then declared his belief that Christian Science is a mixture of "mistaken images, of truths and half truths," the mixture producing the effect of untruths.

NATURAL SCIENCE.

Natural science, or natural law, as the terms are popularly used, is based on a relation of cause and effect. The solar system, the tides, the trade winds, gravitation, magnetism and electricity are reliable entirely because of uniformity of action in which an antecedent known as cause is followed by an invariable consequent called an effect. The calculation of an eclipse is made possible by these relations. Every seed brings forth fruit according to its kind. The relative proportion of the sexes remains practically the same from age to age.

The human body in health and disease is under the same general law. It is easy to distinguish the human body from that of the animal, and a tree from a stone. A stone has no life; the tree has restricted life; the

lower animal life is circumscribed by its body, as is also the animal life of man. All that we know of life is that it is a power which from within resists aggression from without and repairs what damage may be done. If a tree dies it becomes like a stone in the particular that there is no life. Such a change sooner or later occurs in the bodies of living beings whose composition comes under the primary laws of matter. "Health" is the perfect condition of a body having life. By analyzing the word disease it is easy to get a satisfactory definition of health. Disease signifies the absence of ease to a living being in feeling, perception or action. Health, therefore, signifies ease in feeling, perception and action; that is, soundness of body; that condition of its parts and of the whole which guarantees "the harmonious operation of the whole system."

According to natural science there may be general or local disease; it may be in the organic structure, in the blood or the nerves. Food, exercise, rest and sleep in right proportions preserve the human system in health. Disease can be caused by accidents, which derange or destroy any part of the machinery or clog it; over exertion which wears it out, over or under feeding, improper food, innutritious food, effete matter that is not eliminated, internal poisons generated in the body and germs and poisons from without; these may stop the human machinery entirely or damage only one part of it. When one part is damaged it may throw more work upon another part, and thus the condition known as disease may spread. When nothing else is the matter, mere

old age is not disease. It is as natural as growth.

Death may follow old age without disease. The machine is worn out and stops. Ideal old age is seldom reached, death being accelerated by disease or accident. The relation sustained by human beings to the physical universe is such that it is possible that at any time sudden death may occur to persons in health, but observation enables persons to forecast with a fair degree of accuracy, also to assist nature by means of medicine and surgery.

Because of the general uniformity of the operation of nature, the average duration of human life can be computed with much accuracy, and the marvelous systems of life insurance—which rest on the average duration of human life and the compound interest of money—stand before the world as an absolute demonstration of the reliability of the so-called laws of nature.

Christian Science practically denies them all. It denies all that science says about the human body; it affirms that it is a mere dream. But it is on these facts and possibilities that medicine and surgery are based.

Dr. Buckley then expounded

THE THEORY OF CHRISTIAN SCIENCE.

He announced that to prevent misunderstanding or the charge of misrepresentation he would let Mrs. Eddy give the theory in her own words, and then quoted her fundamental principles as follows:

1. "The only realities are the Divine Mind and its ideas."
"Erring mortal views, misnamed

mind, produce all the organic and animal action of the mortal body."

In reasoning about this, Mrs. Eddy says:

"The ineradicable belief that pain is located in a limb which has been removed, when really the sensation is believed to be in the nerves, is an added proof of the unreliability of physical testimony. . . . Electricity is not a vital fluid, but an element of mortal mind—the thought-essence that forms the link between what is termed matter and mortal mind. Both are different strata of human belief. The grosser substratum is named matter. The more ethereal is called human mind, which is the nearer counterfeit of the Immortal Mind, and hence the more accountable and sinful belief. . . . You say 'Toil fatigues me.' But what is this you or me? Is it muscle or mind? Which one is tired and so speaks? Without mind, could the muscles be tired? Do the muscles talk, or do you talk for them? Matter is non-intelligent. Mortal mind does the talking, and that which affirms it to be tired first made it so."

2. Mrs. Eddy denies that there is any such thing as prayer in the sense of asking a personal God to do a certain act. Her most frequent assertions are: "God is principle, not person; . . . the only substance, the only life."

3. She declares that:

"Divine science shows that matter and mortal body are the illusions of human belief, which seem to appear and disappear to mortal sense alone."

4. She declares that:

"Human mortality proves that error has been ingrafted into both the

dreams and conclusions of material and mortal humanity."

5. Another passage from Mrs. Eddy is:

"You would not say that a wheel is fatigued, and yet the body is just as material as the wheel. Setting aside what the mind says of the body, it would never be more weary than the inanimate wheel. Understanding this great truth rests you more than hours of repose."

Her conclusion from the whole is:

"Besiege sickness and death with these principles and all will disappear."

Every one of Mrs. Eddy's statements in the foregoing is contrary to the laws of nature, the experience of the human race, and—so far as they touch the Scriptures—entirely contrary to them.

Mrs. Eddy's theory of God is contradictory to the teachings of Christ. Everywhere God is spoken of as a person. "God is a spirit; and they that worship Him must worship Him in spirit and in truth, for the Father seeketh such to worship Him." Here "the Father" is represented as seeking true worshipers; and all the passages in the New Testament relating to the Father speak of Him as a person. Though an infinite being, He is a person in the same sense as human beings are persons. "If yethen, being evil, know how to give good gifts unto your children, how much more shall your Father which is in heaven give good things to them that ask Him."

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Neither the Old Testament writers nor Christ nor the apostles nor the evangelists ever spoke of sickness or

its cure as though they had any knowledge whatever of Mrs. Eddy's theory; but they spoke as though what she teaches is false. There is not a single instance in the Bible to which—without forcing words out of their real meaning—Mrs. Eddy's theory could be applied.

EXAMPLES FROM THE OLD TESTAMENT.

In the Old Testament, Elisha the prophet, notwithstanding the fact that his prayers had restored the widow's son to life, himself dies of lingering disease. The words are: "Now Elisha was fallen sick of his sickness, whereof he died."

Hezekiah the king was extremely sick, and, according to the Scriptures, Isaiah the prophet prayed to God for him, and also applied a plaster of figs as a medicine, which plaster of figs God blessed.

In the Second Book of Kings, first chapter and second verse, is this statement: "Ahaziah fell down through a lattice in his upper chamber and was sick." He sent to inquire of Baal Hebub, the god of Ekron, "whether he should recover of this disease."

The Second Book of Chronicles, sixteenth chapter and twelfth verse, has these words: "And Asa in the thirty and ninth year of his reign was diseased in his feet until his disease was exceeding great." The same book states that God sent a plague on Jehoram; this was the proclamation: "Thou shalt have great sickness by disease of thy bowels, until thy bowels fall out by reason of the sickness, day by day." Thus "God smote him with an incurable disease."

The effects of improper food in causing sickness are mentioned in Proverbs: "Hast thou found honey? Eat so much as is sufficient for thee, lest thou be filled therewith and vomit it."

There is another passage: "The sleep of the laboring man is sweet, whether he eat little or much; but the abundance of the rich will not suffer him to sleep."

Here is still another passage, Proverbs 31:6: "Give strong drink unto him that is ready to perish, and wine unto those that be of heavy hearts. Let him drink and forget his poverty, and remember his misery no more." This shows that by the holy men who were inspired to write the Sacred Scriptures the medical effects of wine and strong drink, and their value in some cases as a stimulant and in others as an opiate were known and acted upon.

EXAMPLES FROM THE NEW TESTAMENT.

In the New Testament it was Christ himself who said: "They that be whole need not a physician, but they that are sick." And when Lazarus was ill his sisters sent a message unto Christ, saying: "Lord, behold, he whom Thou lovest is sick."

When Jesus heard that He said: "This sickness is not unto death, but for the glory of God, that the Son of God might be glorified thereby."

In Christ's parable of the Good Samaritan, he "bound up the wounds" of the man who had fallen among thieves, "pouring in oil and wine," these things being the chief medicines in use among the Jews.

The account of the sickness of Dor-

cas and all the circumstances show that they had no such ideas of sickness as are taught by Christian Scientists.

Again, St. Paul speaks of the effects of drunkenness and gluttonness at the Holy Communion, where that festival had been carried to such an extent that he says: "For this cause many are weak and sickly among you, and many sleep."

Paul's sufferings and weakness and painfulness are described, and especially his "thorn in the flesh," and he prayed to God three times that it might depart, but without success.

The prescription from Paul to Timothy is that he should "drink no longer water (exclusively), but use a little wine for his stomach's sake and his other infirmities," and is plainly medical.

Another remark of Paul's shows how little he knew in comparison with Mrs. Eddy: "Erastus abode at Corinth, but Trophimus have I left at Miletum, sick."

The words of Paul concerning Epaphroditus are also to the point: "For he longed after you all, and was full of heaviness because that ye had heard that he had been sick. For indeed he was sick nigh unto death, but God had mercy on him; and not on him only, but on me also, lest I should have sorrow upon sorrow."

Paul evidently knew nothing of Mrs. Eddy's half truths, and would have included them with the "old wives' fables," against which he warned the disciples.

When St. John describes the final abode of the righteous he says that "there shall be no more death, . . . neither shall there be any more pain."

"They shall hunger no more, neither thirst any more." These passages plainly teach that in this world there will be always sickness, pain, death and other consequences of the mortality of the body in which it has pleased the Creator of the universe to imprison the soul of man.

The speaker then took up the rules given by Mrs. Eddy for the practice of Christian Science.

RULES FOR THE PRACTICE OF CHRISTIAN SCIENCE.

1. "Anatomy, physiology, treatises on health, sustained by what is termed material law, are the husbandmen of sickness and disease. Clairvoyants and medical charlatans are the prolific sources of sickness, etc. They first help to form the image of illness in the mortal minds by telling patients that they have a disease; and they then go to work to destroy that disease. They unweave their own webs. When there were fewer doctors and less thought was given to sanitary subjects there were better constitutions and less disease."

In the foregoing Mrs. Eddy refers to physicians as medical charlatans. This appears from the closing part of the statement, "when there were fewer doctors," etc. The half truth here is that it is possible to produce some forms of sickness by causing patients to believe that they have a disease, and there have been some instances where persons did this and were incapable of restoring patients to health. Death, indeed, has been caused by such misrepresentation, but the statement that anatomy and physiology and treatises on health are the husbandmen of sickness and disease

is untrue. It is false that "when there were fewer doctors and less thought was given to sanitary subjects there were better constitutions and less disease." The average duration of human life has been greatly increased. Many epidemics have disappeared by increased knowledge of sanitary subjects. Even the people of New Orleans, who abominated the very name of General Butler, admit that he taught the people how to keep away the yellow fever by sanitary measures. One hundred and fifty years ago, in some countries, a large minority (and in some sections the majority) were marked with the peculiar scars which smallpox leaves. Fearful plagues spread over the whole world; cholera, yellow fever and other great plagues are found to be either the products of filth or are greatly increased in virulence by its existence, and the theory of the bacterial origin of many has been substantiated.

The more rational thought the world gives to sanitary subjects, the less disease.

2. Mrs. Eddy maintains that diet is of no importance.

"We are told that the simple food our fathers ate assisted to make them healthy, but that is a mistake. Their diet would not cure dyspepsia at this period. With rules in the head, and the most digestible food in the stomach, there would still be dyspepsia."

Here, again, she stumbles over a half truth. People thinking all the time about their food, and following in imagination every mouthful through the processes of digestion, are liable to suffer from indigestion; but those who understand the princi-

ples of hygiene select proper food, eat it rationally and live in other respects hygienically will not have dyspepsia, or if, when they have been careless, they are attacked by it, on the return to the practice of hygienic rules it will disappear.

3. Mrs. Eddy teaches that exercise is of no importance.

"Because the muscles of the blacksmith's arm are strongly developed, exercise did it, or that an arm less used must be fragile. If matter is the cause of action, and muscles without the co-operation of mortal mind could lift the hammer, it might be thought true that hammering enlarges the muscles. But the trip hammer is not increased in size by exercise; why not, since muscles are as material as wood and iron?"

Her statements upon this subject, if it were not for her commercial success, would be regarded as evidence of mental derangement. A distinguished lawyer in Massachusetts, in childhood, had the misfortune to lose his left hand by an accident. He grew to manhood, and took, with his right arm, much athletic exercise. It is twice the circumference of the left arm between the elbow and the shoulder. It would be a waste of time to attempt to show further the absurdity and irrationality of the proposition.

4. Mrs. Eddy teaches that for health purposes bathing and rubbing are worse than useless. This is her definite statement:

"Bathing and rubbing to alter the secretions or remove unhealthy exhalations from the cuticle receive a useful rebuke from Christian healing."

When her votaries, therefore, for health purposes resort either to bath-

ing or massage "they are under rebuke," they are contradicting the teachings of her whom they call "Mother."

5. In view of the foregoing, it is not surprising that she states in substance that ignorance is a great advantage to persons who wish to obtain the benefits of her theory.

This is the passage in which the idea often repeated in *Science and Health* is expressed most concisely:

"A patient thoroughly booked in medical theories has less sense of the divine power and is more difficult to heal through the mind than an aboriginal Indian who never bowed the knee to the Baal of civilization."

6. But Mrs. Eddy attributes superhuman healing power to her own writings. These are her words:

"My publications alone heal more sickness than an unconscientious student can begin to reach. If patients seem the worse for reading my book, this change may either arise from the frightened mind of the physician or mark the crisis of the disease. Perseverence in its perusal would heal them completely."

This surely is abnormal self-valuation.

7. Her principal rules for treating patients are as follows:

(1) The healer must study and strengthen his own mind. "Be firm in your understanding that mind governs the body. Have no foolish fears that matter governs, and can ache, swell and be influenced by a law of its own. . . . If you believe in inflamed or weak nerves you are liable to attack from that source. You will call it neuralgia, but I will call it illusion."

(2) "Never tell the sick that they have more courage than strength. Tell them, rather, that their strength is in proportion to their courage.

. . . . Instruct the sick that they are not helpless victims, but that if they only know how they can resist disease and ward it off, just as positively as they can resist a temptation to sin."

The foregoing is another instance of stumbling over a half truth. Sometimes sick persons deserve precisely what she here says, but only a limited class; many "are helpless victims." The general hospitals and the insane asylums swarm with them. There is a false courage and there is an apparent strength. False courage can lead people to make efforts that will end in their speedy death, and false strength will cause them to believe that they are well when they are dangerously ill. There are many diseases that cannot be warded off or removed without physical assistance, as many Christian Scientists have found, and, neglecting or refusing that too long, have passed beyond cure.

8. Mrs. Eddy thus instructs her students what to do when the patient grows worse:

"Suppose the patient should appear to grow worse? This I term chemicalization. It is the upheaval produced when the immortal truth is destroying erroneous and mortal belief. Chemicalization brings sin and sickness to the surface, as in a fermenting fluid, allowing impurities to pass away. Patients unfamiliar with the cause of this commotion and ignorant that it is a favorable omen may be alarmed. If such is the case, explain to them the law of this action."

The use of such terms and phrases as "chemicalization," "fermenting fluid," "impurities passing away," by Mrs. Eddy is a singular inconsistency. But the remedy she proposes is only applicable in a small number of cases. In many diseases, whatever is done for the patient, he will appear to grow worse. If he survives the condition, he will recover; if not, he will die or remain ill; but to very many it is impossible "to explain to them the law of this action." Many a Christian Science healer has hurriedly sent for a physician to certify the cause of death. Literally "chemicalization" was really going on, vital laws were ceasing and the processes of decomposition, which are strictly chemical, were beginning.

9. Some of the things which are not to be done she states as follows:

(1) "A Christian Scientist never gives medicine."

(2) "Never recommends hygiene. Never manipulates."

(3) "He never tries to 'focus mind.' Never places patients and practitioner 'back to back.' Never 'consults spirits nor requires the life history of his patient.'"

It is to be noted that Mrs. Eddy despises hygiene as heartily as she does medicine. The irrational presumption which her theory develops appears in the fact that she wishes to know nothing of the life history of the patients. The third of these items is a stroke at her competitors, the mind healers and the spiritualistic healers. Here, however, she fails to note that trying "to focus mind" might produce some effect upon the mind of the class of patients with which she is most successful, and

even such a process as placing "patient and practitioner back to back" might have some power for good if the patient thought so."

10. Power to operate at a distance is claimed. What it implies is shown in Mrs. Eddy's own words:

"The following is a case of heart disease which I cured without having seen the patient:

"Please find enclosed a check for five hundred dollars in reward for services that can never be repaid. The day you received my husband's letter I became conscious for the first time in forty-eight hours. My servant brought my wrapper, and I arose from my bed and sat up. . . . The enlargement of my left side is all gone, and the doctors pronounce me rid of heart disease. I had been afflicted with it from my infancy. It became organic enlargement of the heart and dropsy of the chest. I was only waiting and almost longing to die, but you have healed me. How wonderful to think of it, when you and I have never seen each other.'"

The publication in this account of the five hundred dollar check is a delicate psychological hint as to what is the most acceptable form of gratitude. With such Mrs. Eddy abounds.

But an examination of the statement shows it is quite possible that neither Mrs. Eddy nor the "letter" the husband sent had anything to do with the cure."

The extravagance of the invalid's description deserves attention. She had had "heart disease from infancy;" "it had become organic enlargement of the heart and dropsy of the chest." This being an internal disease, it would be desirable to know

how skillful the persons were who declared her to be suffering from "organic enlargement of the heart."

In any case, if she were ever to recover consciousness it would be at some one time. While in that state unconscious persons frequently have a much needed rest; during that time reconstructive processes often begin. Every nurse is aware that after long periods of unconsciousness persons show frequently considerable improvement; indeed, recovery often dates from such apparent deaths and resurrections. No particulars of the woman's life are given, or whether her cure was permanent, nor what her doctors really thought of her case.

PROOF THAT EDDYISM IS SCIENTIFICALLY FALSE.

The lecturer then subjected the theory of Christian Science to a series of practical tests, which he maintained were fatal to Mrs. Eddy's claims:

1. If this theory be true, food should not be necessary. Why eat? Hear Mrs. Eddy:

"Gustatory pleasure is a sensuous illusion, an illusion that diminishes as we understand our spiritual being and ascend the ladder of life. This woman learned that food neither strengthens nor weakens the body—that mind alone does this."

She tries to circumvent testimony of senses thus:

"The truth is, food does not affect the life of man; and this becomes self-evident when we learn that God is our only Life. Because sin and sickness are not qualities of Soul or Life we have hope in immortality; but it would be foolish to venture beyond our present understanding, fool-

ish to stop eating until we gain more goodness and a clearer comprehension of the living God. In that perfect day of understanding we shall neither eat to live nor live to eat."

It is clear that as long as Mrs. Eddy eats she is perpetuating an illusion, or proving herself wrong in her notions. Her theory goes down under the test. For, giving up food, simply brings on the diseases which are the accompaniments of starvation, the end of which is death.

2. Mrs. Eddy denies that drugs have any real power:

"Christian Science divests material drugs of their imaginary power. . . . The uselessness of drugs, the emptiness of knowledge, the nothingness of matter and its imaginary laws are apparent as we rise from the rubbish of belief to the acquisition and demonstration of spiritual understanding."

Some of her followers have gone so far as to say:

"The property of alcohol is to intoxicate, but if the common thought had endowed it simply with a nourishing quality like milk, it would produce a similar effect."

If that is true, if mankind thought so, pure alcohol would be a good thing to nurse children upon and milk would be an intoxicating fluid.

Against this absurdity stands the fact that drugs affect animals, wild or domestic; they also affect idiots.

Mrs. Eddy tries to meet this thus:

"If a dose of poison is swallowed through mistake the patient dies, while physician and patient are expecting favorable results. Did belief cause this death? Even so; and as directly as if the poison had been intentionally taken. . . . The few

who think a drug harmless, when a mistake in a prescription has been made, are unequal to the many who have named it poison, and so the majority opinion governs the result."

This fantastic theory was undoubtedly manufactured in the hope of avoiding the consequences of the originally absurd statement. It goes far to support the belief that Mrs. Eddy now sincerely believes in her theory. For no woman of sense, common or uncommon, would write such nonsense unless self-deceived or deceived by others.

3. Eddyism teaches that accidents to the human body, such as railway accidents, etc., would not produce the results which they appear to produce if it were not that the general belief is that such accidents would have such an effect.

This is Mrs. Eddy's theory in her own words:

"The fear of dissevered bodily members, or a belief in such a possibility, is reflected on the body, in the shape of headache, fractured bones, dislocated joints and so on, as directly as shame is seen in the blush rising to the cheek. The human error about physical wounds and colics is part and parcel of the delusion that matter can feel and see, having sensation and substance."

According to Mrs. Eddy the frightful railroad accidents that are occurring at the present time would do no harm if the passengers actually believed that the collision could not produce any such effects. That this absurdity can be believed raises doubts whether popular education is in many cases much more than a varnish.

4. The existence of insanity over-

throws Mrs. Eddy's theories. She says:

"Insanity implies belief in a diseased brain. . . . A bunion would produce insanity as perceptible as that produced by congestion of the brain were it not that mortal minds call the bunion an unconscious portion of the body. Reverse this belief and the results would be different."

In another place she says:

"Those unfortunate people who are committed to insane asylums are only so many well-defined instances of the baneful effects of illusion on mortal minds and bodies."

In the face of all this it is well known that a blow on the head will produce insanity; on the head of an infant or a small child it will arrest development, so much so that the infant thus injured will frequently be considered by its own parents an idiot from birth. Sometimes surgery is able to remove insanity thus caused. Post mortem examinations frequently reveal the cause.

5. If so-called Christian Science be true, its devotees should be able to escape all the conditions and signs of old age. In the beginning of the delusion certain persons looking much younger than their years espoused the science and attracted great attention by their youthful appearance, but one by one they have faded, and their appearance, now wrinkled and gray, most of them compelled to wear glasses, and some of them tottering from rheumatism, presents a melancholly contrast to both their former condition and their pretensions.

6. If Eddyism were true, neither fire nor clothing should be necessary for warmth, for in that case the ef-

fects of absence of heat, like other dreams of mortal mind, are simply illusions.

7. The most potent test is death. Mrs. Eddy's proposition in "Science and Health" is that if death is besieged with her principles it will disappear. If so, those who fully believe, or as she would express it, "understand," should never die; but they do. They die of disease, by the effects of injury, or from old age. Soon Mrs. Eddy will go the way of all flesh.

A FLAGRANT INCONSISTENCY IN MRS. EDDY'S CONDUCT.

It was reported throughout New England that Mrs. Eddy had applied to a dentist to remove a painful tooth, and that she also applied to the said dentist to give her an anesthetic so that she would not feel the pain of the tooth. For a long time the subject was discussed in the papers. Finally, Mrs. Eddy thought it wise to take up the matter in the Christian Science Journal. She secured from Dr. John M. Fletcher, of Concord, N. H., and published the following over his signature in the Christian Science Journal:

"The story told by the Rev. Dr. Whitaker and others to the effect that Mrs. Mary Baker G. Eddy called at my office in Concord, N. H., in great pain, and had a carious tooth extracted, requesting me to use a local anesthetic before extracting the tooth, is incorrect. Mrs. Eddy did call at my office and had a troublesome tooth extracted. But it was not a carious tooth; neither was she in pain at the time. She did request me to extract the tooth, allowing me to use my own

painless method of extracting teeth, which I had recommended.

"I will take no further notice of inquires on this subject.

(Signed) "JOHN M. FLETCHER.

"Concord, N. H., November 22, 1900."

It is clear from the above that Mrs. Eddy's tooth was troublesome. If it was troublesome it was because it hurt her. According to her theory it was only "a claim, an illusion of mortal mind." She had the tooth extracted. "The tooth was not a carious one, neither was she in pain at the time," but she went to the dentist because it was troublesome, and "she allowed him to use his own painless method for extracting teeth, which he had then and there recommended to her for that purpose."

In the Christian Science Journal she endeavors to show that she was consistent.

First, she says the practice of surgery is not introduced into Christian Science, and thus proceeds:

"Bishop Berkeley and I agree that all is Mind. Then, consistently with this premise, the conclusion is, that if I employ a dental surgeon, and he believes that the extraction of a tooth is made easier by some application or means which he employs, and I object to the employment of the means, I have turned the dentist's mental protest against myself; he thinks I must suffer because his method is interfered with. Therefore, his mental force weighs against a painless operation, whereas it should be put in the same scale as mine, thus producing a painless operation as a logical result."

The cuttlefish blackens the water in order to escape. That seems to be

the object of the foregoing peculiar passage. Mrs. Eddy implies that if she had objected to the dentist's employing his application, or means, that she would have to suffer; and that his thinking that she would suffer would bring it to pass; but by her consent to the use of it, it works, in some way, with her theory, thus "producing a painless operation."

This is childish. According to her own theory she should have said, "Proceed with your work, I shall feel no pain." Here she seems willing to agree to avail herself of Bishop Berkeley's great name, yet in another place she says:

"Those who formerly sneered at it as foolish and eccentric now declare Bishop Berkeley, David Hume, Ralph Waldo Emerson, certain German philosophers, or some unlearned mesmerist, to have been the real originators of Mind Healing. Emerson's ethics are models of their kind; but even that good man and genial philosopher partially lost his mental faculties before his death, showing that he did not understand the science of mind healing, as elaborated in my 'Science and Health;' nor did he pretend to do so."

In that passage more conceit is concentrated than any other false prophet ever exhibited, and it implies that no person who understands the science of mind healing as elaborated in "Science and Health," will ever partially lose his mental faculties before his death. If it does not imply that it means nothing. Emerson's friends, knowing that it is not uncommon in old age for the mental faculties, depending as they do upon physical conditions, to suffer from the effects

of decay in common with other parts of the body, had no motive to conceal his infirmities. Whether the world will ever know what condition Mrs. Eddy's faculties will be in the closing years or months of her life is doubtful; but should she show no marked deterioration it will prove nothing for her theory, since a considerable minority of mankind, when protected from any strain remain, like Oliver Wendell Holmes, the poet physician, John Wesley, William E. Gladstone and Benjamin Franklin, eighty years young."

EXPLANATION OF SUCH RECOVERIES AS OCCUR UNDER CHRISTIAN SCIENCE TEACHING.

In common with that of Dowie, Simpson, etc., and their followers, much of the testimony upon which Christian Scientists rely is exaggerated or false.

It is often difficult and sometimes impossible to determine the nature of an internal disease. Post mortems often show that the most distinguished physicians of Europe and America have been entirely ignorant of the nature of an internal malady which caused the death of the subject of such post mortem examination. Nor is it always easy in external diseases to distinguish the malignant from non-malignant cancers or tumors. In most cases discrimination is possible, but there is always room for errors in judgment, and it is self-evident that persons who spurn the experience and knowledge of ages are more liable to mistake than others who have had long experience in endeavoring to make a true diagnosis of disease.

Notwithstanding these facts, remarkable cures or cessations of disease have occurred among believers in Eddyism.

How are they to be explained? Many of them belong to the class of so-called self-limited diseases. This is the case with pneumonia. It is a strictly self-limited disease, and without any medicine at all every patient whose strength is sufficient to sustain the body until the reconstruction in the diseased parts takes place, will recover.

But there are diseases that are not self-limited, but are cured by extraordinary excitement and by plainly mental operations. Rheumatism belongs to this class, consequently there are numerous quacks, disposing of metal rings, pads and other means which have no remedial power in themselves. In addition to this many persons who have been treated by the best physicians and have been given up to die have gradually recovered by the influence of their own vital force, and that too, sometimes, when the improper administration of medicine has interfered with their recovery.

For many ages it has been known by the wisest physicians that in many diseases it is a great benefit if persons will not think of them, and that if they expect recovery it is "half the battle." In this way a Christian Science healer can do much good by creating the expectation that good is being done. Among physicians, one will go into a home in such a cheerful manner that the patient feels better as soon as he sees him, and now and then one will be so gloomy that unless he is discharged the patient will probably die. (Dr. Buckley illus-

trated this point with cases from real life.) Then there are many recoveries from mere natural force, aided by the impression made upon the imagination. For centuries it has been known that warts often disappear speedily after certain absurd practices of incantations. The explanation is that the direction of the mind to the parts of the body where they are causes an increased flow of blood, and, finally they are sloughed off. Scurvy, a very obstinate disease, has succumbed to similar practice. The King's evil takes its name, not from the fact that the King of England had the disease, but because the King's touch in many cases was followed by a disappearance of the symptoms.

Sir Humphrey Davy records that on being called to see a man who was smitten with paralysis, he introduced a thermometer into his mouth for the purpose of taking his temperature. The man, believing it to be for the purpose of relieving him, declared that he felt much better, and Sir Humphrey Davy conducted him toward recovery without any more effective aid than this influence on the imagination. It is quite possible that without such encouragement the man might have improved materially, for many cases of partial paralysis do improve whether treated or not, and a little knowledge of physiology will explain why.

Then there are certain so-called occult causes. In most parts of the world where witches were believed to exist there were and are what are known as witch doctors, who have the power in popular belief, of counter-working the witches.

All supposed occult, but really nat-

ure's methods, whether employed by the Zouave Jacob, who flourished so long in Paris, by Dr. Newton, the Spiritualist healer, or his rival, Bryant, by Mormons, or by any of the itinerant healers of every sort, will appear to a certain extent to be effective, and often there is no recurrence of the symptoms. And no matter what a man's theory is, if he can make the people believe it, he will get all the benefits of the strength of vital force that may be in the patient, the results upon self-limited diseases, plus the mental strength which the faith of the subjects will give. This last is a double result for good, since without that faith they would be depressed; and the effect of depression is to produce disease where there is none, and often to increase the tendency to a fatal extent.

WHY NOT LEAVE ALL DISEASES TO NATURE.

At this point Dr. Buckley raised the question, if this explanation given for the healings which follow Christian Science and other anti-medicine forms of healing is true, why not leave all diseases to nature and use some such method of suggestion to help nature in the fight? There is a plain answer. Many diseases are not self-limited. They are of such a nature that unassisted nature never cures them.

Again, often the people, including both the sufferer and his friends, are alarmed and incompetent to assist nature or to compose the fears of the patient.

Where surgery is actually needed nature never effects a cure without its aid. A broken leg must be set accu-

rately or the man will have a stiff, a crooked, or a shortened leg.

It is said that doctors and surgeons have many failures, and their patients suffer relapse. They do, or else no one would die; but when physicians—provided they are sufficiently educated and skillful to warrant their employment—fail to cure, they have used all the knowledge accumulated by mankind plus their personally acquired knowledge by experience and observation. Whereas, those who despise that knowledge and who profess to have divine power, if unable to do anything that cannot be accounted for by natural causes unwillingly demonstrate that they have not the power they claim.

All of these wonder-workers are subject to similar limitations and relapses. There are diseases which they cannot benefit at all. From some maladies persons recover, but in other cases of the same disease, not distinguishable from the first, these wonder-workers fail.

None of them can restore a limb that has been lost, nor an eye, nor raise the dead; nor can they do any of the distinctive "mighty works" which the New Testament records of Christ and his apostles.

MRS. EDDY'S SUCCESSFUL COMPROMISES, CONCESSIONS AND RETREATS.

1. She is obliged to give up surgery. No real surgical case will Christian Science healers now attempt with her approbation. Finding that she would involve herself in difficulty if she proceeded far in that line, she wrote the following in *Science and Health*:

"Christian Science is always the most skillful surgeon, but surgery is the branch of its healing that will be last demonstrated. However, it is but just to say that I have already in my possession well-authenticated records of the cure, by mental surgery alone, of dislocated hip joints and spinal vertebræ."

This obviously implied that within a short time she expected that its power would be demonstrated. Her statement is of no value, for she gives no authentic records for criticism, either of the injuries or of the cures. "Mental surgery alone" does not allow of any assistance, otherwise the word "alone" would transform the statement into a falsehood. When she issued the *Christian Science Text Book* she was obliged to write the following:

"Until the advancing age admits the efficacy and supremacy of mind, it is better to leave surgery and the adjustment of broken bones and dislocations to the fingers of a surgeon, while you confine yourselves chiefly to mental reconstruction and the prevention of inflammation."

But in the *Christian Science Journal* she makes a complete change of base, stating that "the practice of surgery is not introduced into Christian Science, whose rules and methods are based upon the examples of Jesus and his followers." This was a desperate proposition, especially as it showed gross ignorance of the Scriptures. The lame and the maimed were healed by Jesus. Mrs. Eddy, in her despair, forgot that Luke, the beloved physician, records in the gospel that the very last miracle of healing performed by Christ was surgical; "and one of

them smote the servant of the high priest and cut off his right ear. And Jesus answered and said: 'Suffer ye thus far,' and he touched his ear and healed him." That was neither medicine nor Christian Science.

When Mrs. Eddy was asked why Christians of every sect in the United States failed in their prayers to save the life of President McKinley, she responded:

"Insufficient faith or spiritual understanding, and a compound of prayers wherein one earnest, tender desire works unconsciously against the *modus operandi* of another, would prevent the desired result. In the practice of *materia medica* croton oil is not mixed with morphine to remedy dysentery, for these drugs are supposed to possess opposite qualities and to produce opposite effects.

"Our lamented president, in his loving acquiescence, believed that his martyrdom was God's way. Hundreds, thousands of others believed the same, and hundreds of thousands who prayed for him feared that the bullet wound would prove fatal. Even the physicians may have feared thus.

"These conflicting states of the human mind, of trembling faith, hope and fear, evinced a lack of the absolute understanding of God's omnipotence, and thus they prevented the power of absolute truth from reassuring the mind and, through it, resuscitating the body of the patient."

Dr. Buckley pointed out that the physicians for the greater part of the time believed that the president would recover; they issued the most encouraging bulletins, and one of the most celebrated among them declared that

he was sure to recover, and that he might even then be safely taken to Washington, only they should, under the circumstances, be extremely cautious.

The lecturer also pointed out that the post mortem showed that the president was fatally injured from the beginning.

2. She also instructs her healers to summon persons specially educated in the department of obstetrics to take charge of cases of childbirth.

3. She has issued within two years advice to the Christian Scientists concerning infectious and contagious diseases. The following is from the *Christian Science Sentinel* of November, 1902:

Mrs. Eddy advises that:

"Until public thought becomes better acquainted with Christian Science, Christian Scientists shall decline to doctor infectious or contagious disease."

This is a concession that such diseases exist, and that they are not capable at the present time of grappling them. To carry out her advice, however, would require a skilled expert in such diseases to determine in many cases whether they are infectious or not, for the earlier symptoms of several non-contagious diseases are similar to those of several infectious or contagious diseases.

4. She has consented that when healers see that they are not making much progress, and that the patient grows worse, they should notify the person, so that he may send for a physician.

And, fifth, notwithstanding the fact that she declares that all diseases are "mere delusions of mortal mind,"

she consents that her representatives should arrange with regular physicians to certify the cause of death, specifying the same in ordinary terms of scientific medicine.

CONCLUSION.

To all the large hospitals of the country believers in Christian Science have been taken, and many of those who have remained at home, refusing all aid, have died, sometimes in horrible agony, of diseases which, in their earlier stages, are usually readily cured, and till near the time of death the "healers" were repeating their parrot-like statements that they were not helpless victims, but could shake off disease "if they only knew how."

In the history of the world many societies, based on learned ignorance or unlearned fanaticism, have been formed, and for a time their members have appeared to defy sickness and death. Such was the case of the Oneida community. They were rudely awakened from their dream by the drowning of several of their members in going from one station to another. After that they were much perplexed for a time as to whether or not those were true believers. But whenever the members of such societies have begun to grow old the ordinance of nature has been executed upon them all. There is no escape. "It is appointed unto man once to DIE." And if it be appointed unto man once to die, it is appointed unto him that one or more of the causes of death shall operate upon his mortal body.

All such societies have a peculiar fascination for certain types of mind, and occasionally those of the ordi-

narily sound common sense and self-control are convinced of the reality of Dowiesm and Christian Science, not by the arguments of its advocates, but by its apparent general success.

But Eddyism and its healers can never permanently displace the skilled surgeon or the educated physician. Their arrogant and exclusive pretensions are of the nature of a craze. Christian Science as a system of healing would have died already had it not been put forth as a system of religion; and it would have died already as a religion if it had not been put forward as a system of curing diseases.

The majority of mankind will ever prefer a physician who understands both the mind and body, who relieves the patient of the responsibility of treating himself, and thus quiets his mind, strengthens him by hope, and stimulates him by personal presence. They will respect and trust one who will interfere with nature only when it is absolutely necessary and absolutely safe, but who, understanding the human constitution and the mineral, plant and animal substances included in *materia medica*, can assist struggling nature. They will also prefer a physician who, by the use of anesthetics or opiates, can relieve pains which are incurable, prepare them for surgical operations, the pain and agi-

tation of which would be death, but the endurance of which may preserve life; one also who can smooth the pathway to the inevitable end, and when he has the happiness to see them convalescing can impart such hygienic hints as will prevent the return of the malady or save them from something worse.

Apart from the miracles, which no one can now parallel, the essence of Scripture teaching upon prayer, healing and medicine is found the Book of Ecclesiasticus, one of the Jewish books admitted into the canon of the Roman Catholic Church:

"The Lord hath created medicines out of the earth, and he that is wise will not abhor them.

"My son, in thy sickness be not negligent, but pray unto the Lord, and He will make thee whole. Leave off from sin, and order thy hands aright and cleanse thy heart from all wickedness.

"Then give place to the physician, for the Lord hath created him; let him not go from thee, for thou hast need of him. There is a time when in their hands there is good success.

"For they shall also pray unto the Lord that He would prosper that which they give for ease and to prolong life."—*St. Louis Christian Advocate*.

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EDITORIAL.

THE DISTRICT SOCIETY.

At the last annual meeting of the Missouri State Medical Association a resolution was passed by the house of delegates to the effect that no district society would be admitted after 1904. It is the intention of the legislative body of the association to have every county in the state organized. It remains for members of

the Judicial Council whose districts are not fully organized to give the necessary time so that each county may be brought into line. This does not mean an end of the district societies, but a beginning of the county society. The county society is the unit of organization. It elects delegates to the State Medical Association. These delegates control the policy of

the association and elect delegates to the American Medical Association, who with delegates from other state associations, decide the policy of that organization.

OUR JOURNAL.

The first half year of the existence of the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION has passed, and though still in its infancy it has already been of much value to the profession of the state. Not only has it published the transactions of the State Association, but articles or abstracts from the pens of men best known in the medical world. It has been an important factor in the organization of the county society and in maintaining the existing organization of the profession of this state. In the January number there will appear a complete roster of physicians of the state of Missouri who are members of the State Association. This roster will be furnished the American Medical Association, who will publish a medical directory during the coming spring. This will contain the names and addresses of all members of the state and territorial associations. The Publication Committee will make a constant effort to improve the official organ, and invites suggestions looking to the betterment of the JOURNAL from members of the State Association. In the near future several departments will be represented, each under charge of someone especially fitted for work in the direction assigned.

ORGANIZATION.

In our last issue we presented half tones of members of the Judicial

Council, men upon whom the organization of the State Association depends. These gentlemen are to be heartily congratulated for the work done thus far this year. Already Mercer, Iron, Ralls, Wayne, Madison, Stoddard, Cooper, Washington, Bates, and Crawford counties have been organized and affiliated. Just before going to press a roster of membership with dues and application for charter has been received from Washington county through the councillor for the tenth district, Dr. J. J. Norwine. During the past week Dr. B. M. Hypes, councillor for the ninth district, donated three days to the State Medical Association, visiting St. Genevieve, Cape Girardeau and Perry counties and organized all three, thus bringing into line the entire ninth district. In our next issue we will give complete list of the membership in each of the above named counties.

OBITUARY.

Dr. Theodore F. Prewitt, one of the foremost surgeons of the west, died at his residence, 4917 Berlin avenue, St. Louis, on Monday afternoon, October 17th. Dr. Prewitt was born at Fayette, Howard county Missouri, March 1, 1831. He began life independantly at the age of fourteen years, receiving his early literary and professional education in Missouri. He was graduated from the St. Louis Medical College in 1856. Dr. Prewitt was married twice, first in 1856, while an undergraduate, to Miss Mary Ingram, of Virginia, who died three years later. In 1871 he was married to Miss Nellie Sowers, of Palmyra. During 1871 he was appointed super-

intendent of the St. Louis City Hospital, which position he retained un-



til 1874, when he resigned to go to Europe, where he continued his studies in the clinics of London and Berlin. In 1875 he succeeded Dr. Lang-

ford as professor of surgery in the old Missouri Medical College, and later became dean of the Institution. In 1898, when that school became part of the Medical Department of the Washington University, he retained his connection as professor of principles and practice of surgery and clinical surgery. For almost a quarter of a century Dr. Prewitt was chief surgeon of St. John's Hospital, and it was generally conceded that he was one of the ablest diagnosticians in America. At different times he held the office of president of the St. Louis Medical Society, the St. Louis Surgical Society, the St. Louis Obstetrical and Gynecological Society and the Missouri State Medical Association. In 1899 one of the greatest honors that can be conferred upon a surgeon was bestowed upon Dr. Prewitt when he was elected president of the American Surgical Association. Dr. Prewitt is survived by a wife and four children.

NEWS ITEMS.

NEW MEMBERS RECEIVED.

J. E. Parrish Memphis.
I. L. Davis, Granger.
A. H. Mackey, Gorin.
L. M. Coffey, Hitt.
W. R. Ferrell, Bland.
Chas. F. Leach, Feurisville.
Wm. L. Sharp, Mt. Sterling.
John Engelbrecht, Stony Hill.
R. G. Epperly, Prairie Hill.
J. A. Eaton, Belgrade.
James H. Hall, Potosi.
L. T. Hall, Potosi.
J. P. Townsend, Potosi.
W. S. Smith, Belgrade.

According to Dr. A. Passalacqua, antitoxin gives good results in the treatment of pertussis. It acted favorably in his experience in seven very severe cases, even when aggravated by broncho-pulmonary complications. The effect is generally noticeable soon after the first injection, but at least three injections of 1000 units each are required to obtain permanent results.

A valuable anesthetic for inflamed tissues can be had by adding a few drops of 1-1000 solution of adrenalin

to a half to one per cent. solution of cocaine. In injecting this, the first result is an anemia of the skin, due to its action on the vaso-constrictors, followed by a deep anesthesia. Incisions can be made into inflamed tissues with the loss of very little blood, and the method is well adapted for furuncles, anthrax, etc.

In the annual report of Chancellor MacCracken, of New York University, to the board of trustees, he says both the city of New York and the state of New York have lost ground relatively in a shameful degree in their work for medical education. The report of the United States commissioner twenty years ago states the whole number of medical students in the United States as 10,600. Of these the city of New York had 1979, or nearly a fifth. The schools outside the city, at Albany, Buffalo and Syracuse, had 106 additional, making 2085 in the whole state. The latest report of the United States commissioner states the whole number of medical students in the United States as 26,821. Of these there are in the state of New York 2374. Of these only 1800 are in the city; 574 in the rest of the state outside of the city. Thus we have the surprising result that there are fewer medical students in New York City today than there were twenty years ago. The decline in numbers is attributed to the failure of moneyed men to contribute to medical education.

Dr. R. Myers briefly outlines his method of treating typhoid fever. He begins the treatment by giving three 2-grs. doses of calomel, and fol-

lows with a saline of castor oil. He does not hesitate to give calomel at any time if it is indicated. Besides the calomel he gives tablets of charcoal and sodium sulphocarbolate until convalescence is well established. The tablets contain 5 grs. of charcoal and 2 grs. of the sulphocarbolate. One to two ounces of olive oil are given every night, and the colon is flushed out every morning. If the kidneys become sluggish an injection of normal solution per rectum is given the patient. Strychnine is administered as soon as there is the first intimation of weakness. The diet consists of milk; also whisky, plain or in egg-nog. Under this treatment the author has not had a death or relapse in over fifty cases. The patient soon loses his pinched expression and becomes cheerful.

According to Dr. P. Ovary, a mixture of equal parts of quinine sulphate and sodium salicylate is much more efficacious in puerperal fever than either medicament administered alone. He administers the combination in doses of 10 grs. every three hours. Three or four doses are generally sufficient to jugulate the fever in mild cases, but it may be administered as long as the case requires. Of twenty-eight cases treated with this combination, twenty-six ended in recovery. According to the author a double decomposition takes place in the stomach, quinine salicylate and sodium sulphate being formed. The quinine salicylate has a superior efficacy on account of its being in *statu nascendi*, while the sodium sulphate also has a favorable laxative action.

Professor Coramilas, of Athens, Greece, read a paper before the Chicago Medical Society, October 5th, giving an epitome of his work from 1891 up to the present time with the use of carbon bisulphide. After detailing numerous experiments on animals with this agent, and presenting a report of sixty-four cases, the author drew the following conclusions: (1) Carbon bisulphide has no disagreeable effects; (2) it has a strong action against tubercle bacilli; (3) by its action as a parasiticide, antizymotic, antiseptic, dissolving and penetrating all tissues, it cures tuberculosis; (4) it should not remain in obscurity, but take its place in therapeutics as a valuable remedy.

Dr. G. S. S. Hirst was called to see a pregnant woman who had previously aborted eleven times during or after the third month of pregnancy. She and her husband were most anxious to have a living child, and with this object she had consulted medical men during each pregnancy after the third month—that is to say, she had been under medical treatment during the last pregnancies. Of the eleven abortions, three had taken place during the third month, two during the fourth month, five during the fifth month, and one during the seventh month. She could only attribute one abortion to physical causes, viz.: one at the fourth month, when from a fright she fell down, and the abortion followed on the same evening. During the last pregnancy she had taken aletris cordial under the advice of her physician, but she miscarried at the seventh month. She could attribute the miscarriage to no cause. The

doctor ordered the patient to take 2 1-2 grs. of potassium chlorate three times a day, which she took regularly for three and one-half months, up to within two days of her delivery. She was delivered of a full-time living female child. Her labor was easy and the puerperium was unattended by complications. The child, though small, was perfectly healthy. The mother is a perfectly healthy woman, suffering from no misplacement of the uterus or other cause likely to produce abortion.

The Department of Health and Charities, Philadelphia, has arranged a series of lectures to teachers on "The Detection of Contagious Diseases." School teachers all over the city will thus have an opportunity of gaining knowledge of some of the principles of medicine which will enable them to detect minor ailments in children.

Dr. John R. Hamilton writes to the *British Medical Journal*: "I believe that the bag of today is dangerous, but the danger lies in its size. It can hold too many instruments of offense more potent to damage than the most subtle germ, and at the same time being the germ's true friend. I would recommend all young practitioners to procure a very small leather bag, if they desire to be successful obstetricians. They will find in the course of twenty-five years few mishaps, if they keep their hands clean and do not fuss too much."

Gant describes in detail his method of obtaining local anesthesia by the hypodermic injection of sterile water.

The method is simplicity itself. The only thing necessary is to inject enough sterile water to blanch the tissue in the area of operation. The more or less care used in injecting the water will make the difference between failure and success. The efficiency of the method may be best judged by the extensive use to which it has been put by Dr. Gant. The cases in which he has employed it include radical operations for fissure, ulceration, protruding and non-protruding internal hemorrhoids, cutaneous and thrombotic external hemorrhoids, polypi, prolapsus ani, ordinary, complete and blind internal and external fistula and ischio-rectal, marginal, and follicular abscesses; excision of perineal cysts, sacral dermoids and lipomata of the buttocks; removal of foreign bodies beneath the skin and mucosa; division of the sphincter in constipation, when the muscle was so hypertrophied that divulsion had proved ineffective; fixation of an elongated sigmoid to the anterior abdominal wall; colostomy and exploratory laparotomy. The objections to the method are practically *nil*.

SURGEONS AT PAN-AMERICAN CONGRESS.

Dr. Rudolph Matas, secretary of Section of General Surgery for the United States, asks those who wish to contribute papers to send titles to him at No. 2255 St. Charles avenue, New Orleans. He also announces that the United Fruit Company's agents are offering as a special inducement to American "Congresistas" a reduction of the regular fare for the round trip from New Orleans to the Isthmus to \$50.00—that is, \$25.00

each way. The steamers leave New Orleans every Friday; the last steamer to leave New Orleans in time for the opening of the congress will sail on December 30, 1904, at 11 A. M. It takes about four and one-half days to reach Colon, and seven days on the return trip on account of a stop-over at Port Limon, where ample opportunity is given to tourists to visit San Jose, the beautiful capital of Costa Rica ("the Paris of Central America"), where the most picturesque tropical scenery can be seen at this season under the most favorable condition.

A young woman was seized with faintness in the street a few days since and an ambulance was called to her relief. The surgeon promptly made a diagnosis of "drunk," and the unfortunate woman was taken to the police station. There the sergeant on duty took a little more pains than the young surgeon, and, finding the patient was perfectly sober, sent her to her home. She was on the way to her physician's office when overcome. Ambulance surgeons have so much experience with "drunks" that they sometimes forget that a man with a fractured skull is a possible find, and that even young women who lose consciousness in the street are not necessarily intoxicated.

According to the *Public Ledger* the American liner Friesland reached port October 13th, from Liverpool, with 110 cabin and 725 steerage passengers. This number is 200 less than was booked to sail on the vessel. The decrease was due to the vigilance of the ship's doctor in preventing tra-

choma suspects from reaching this country. A majority of those rejected had been passed by the shore doctor at Liverpool, only to be rejected when they boarded the steamship.

According to public health and marine hospital reports, the board of health is still engaged in vaccinating the inhabitants of the city of Manila. A striking fact in support of the value of vaccination has been brought forward in this work. The systematic vaccination of the city by districts was commenced in June last. The plan was to vaccinate first those sections of the city in which smallpox had been more or less present since time immemorial. The vaccination in several of these districts had now been completed. One of the worst of them was finished over a month ago, and it is very satisfactory to observe that in this latter district no cases of smallpox have occurred since the vaccination has been finished. One case was reported, but on investigation it was learned that the case had occurred in the person of a child which had not been vaccinated, and which, in all probability, was brought into the district after the vaccinators had completed their work.

Craig, who is an army surgeon, serving at the Government Hospital at San Francisco, has had unusual opportunities for observing malaria in the troops which return from the Philippine Islands. He defines a latent malarial infection as one in which the parasites are demonstrable in the blood of the patient, but in which there are no symptoms which would lead the clinician to suspect

malaria. A masked infection is one in which the symptoms are obscured by some accompanying disease, or in which the malarial symptoms are atypical in character. The malarial parasite was demonstrated in the blood of 1,267 cases admitted to the hospital.

In 395 of these cases, 25 per cent., there were either no clinical symptoms of malaria or the symptoms were masked by other diseases. The author tabulates and analyzes all the cases of latent and masked infection and concludes that his study affords convincing evidence of the importance of a blood examination as a routine measure in every case of disease.

It has recently been officially announced from the office of the Isthmian Canal Commission that the following medical officers have been assigned to duty in the canal zone to the functions indicated and with the compensation mentioned in each instance: Colonel William C. Gorgas, U. S. army, chief sanitary officer, \$7,500; Medical Director John W. Ross, U. S. navy, directory of hospitals, \$7,000; Major Louis A. LaGarde, U. S. army, superintendent of canal hospital, \$6,000; Dr. Henry R. Carter, P. H. and M. H. S., chief quarantine officer, \$5,750; Surgeon L. W. Spratling, U. S. navy, in charge of sanitary work, \$5,250; Dr. A. B. Herrick, pathologist and clinician, \$4,000; Captain A. N. Stark, U. S. army, physician, \$3,600; Dr. H. A. Stansfield, P. H. and M. H. S., in charge of the laboratory, Panama, \$3,000; Mr. J. A. Le Prince, sanitary officer, \$3,000; Lieut. Theodore C. Lyster, U. S. army, executive officer,

\$2,400; Dr. Lewis Balch, health officer, \$3,000; Dr. E. S. Wheeler, assistant physician \$2,400; Dr. W. F. Smith, assistant physician, \$2,400; Dr. T. B. Wingo, assistant physician, \$2,400; Dr. D. Lacroisade, assistant physician, \$2,400; Dr. Lloyd Nolan, assistant physician, \$1,500. Drs. J. C. Perry, C. C. Pierce and F. W. Ames have also been appointed members of the medical staff, but their salaries have not been determined; they are officers of the government services, and have been ordered to report to the governor of Panama.

To love justice, to long for the right, to love mercy, to pity the suffering, to assist the weak, to forget wrongs and remember benefits, to love the truth, to be sincere, to utter honest words, to love liberty, to wage relentless war against slavery in all its forms, to love wife and child and friend, to make a happy home, to love the beautiful in art, in nature, to cultivate the mind, to cultivate courage and cheerfulness, to make others happy, to fill life with the splendor of generous acts, the warmth of loving words, to discard error, to destroy prejudice, to receive new truths with gladness, to cultivate hope, to see the calm beyond the storm, the dawn beyond the night, to do the best that can be done and then be resigned—this is the religion of reason, the creed of science. This satisfies the brain and the heart.

We have several times spoken of the fact that the Japanese army medical department and Red Cross service

are vastly superior to anything yet illustrated by Occidental nations. These criticisms of our medical science and art, together with others (especially that of Major L. L. Seaman before the military surgeons at St. Louis), has moved our government to despatch army surgeons as attaches to the Japanese and Russian armies operating in the far East, providing the consent of the authorities can be secured. The military observers already in the field with the belligerent armies have reported so many interesting facts touching the operations of the medical departments of the two armies that it has become evident to the general staff that there has been almost a revolution in field hospital methods as a result of the war so far as it has gone, and it is regarded as desirable that the United States Medical Department should lose no opportunity of gathering lessons from the great conflict now going on, with a view of improving our own army medical service. It is probable that when accurate statistics are published, it will be found that never in the history of war have there been so few deaths from disease and wounds, compared with the number of actual deaths in battle, as in the Japanese army during this campaign. The study of the methods whereby the Japanese have brought about this magnificent result well deserves the most serious attention of our government. It is evident that the "yellow peril" may imperil white vanity, and that the Occident must again realize the truth of the old proverb, "*Ex Oriente lux.*"

COUNTY SOCIETY NOTES.

ATCHISON COUNTY MEDICAL SOCIETY.

Dr. E. E. Richards, President.

Dr. J. A. Postelwaite, Vice-President.

Dr. A. McMichael, Secretary.

Dr. J. A. Hunter, Treasurer.

The Atchison County Medical Society failed to have a quorum present at its recent meeting time, so was not called to order. This was not because of apathy, but the doctors of the county are overworked just at present and the weather and roads have been very bad. There is society enthusiasm sufficient to insure a big meeting just as soon as the present spell of hard work has somewhat abated, when we are promised some excellent papers, which will be sent to the journal for abstracting.

AUSTIN McMICHAEL, Reporter.

ST. LOUIS MEDICAL SOCIETY.

Dr. B. M. Hypes, President.

Dr. H. C. Dalton, Vice-President.

Dr. T. A. Hopkins, Recording Secretary.

Dr. H. J. Scherek, Corresponding Secretary.

Dr. R. M. King, Treasurer.

IN MEMORIAM.

The St. Louis Medical Society is again called upon to mourn the loss of one of its oldest, most useful and honored members in the death of

DR. THEODORE F. PREWITT,

which occurred on the 17th day of October, 1904, from a stroke of paralysis, in the seventy-second year of his age.

Dr. Prewitt was born in Missouri, where he received both his literary and professional education. In 1857

he was graduated from the St. Louis Medical College, and soon thereafter he served as interne in the St. Louis City Hospital. Later he was made superintendent of that institution and the large experience and practical training which he acquired during these years begat in him a taste, as well as an aptitude, for surgery which undoubtedly shaped, in a large degree, his subsequent career.

Dr. Prewitt was the recipient of many and distinguished honors from his professional confreres: In 1871 he was elected president of this society; he was similarly honored in the St. Louis Obstetrical and Gynecological Society, the St. Louis Surgical Society, the Missouri State Medical Association and in the American Surgical Association; his administration in each of these associations was remarkable for progress along scientific lines and in material growth.

In 1871 he became Professor of Surgery and Dean of the Faculty of the Missouri Medical College. This professorship he held until the incorporation of the Missouri Medical College with the St. Louis Medical College as the Medical Department of Washington University. In the University he became Professor of the Principles of Surgery, filling this chair at the time of his death.

As a surgeon, Dr. Prewitt was skillful, conservative and successful, always consulting the well-being of his patient rather than yielding to a morbid desire to display his skill as an operator. As an educator, his influence with the student body of the

city has for years been to inspire an ambition to the best that may be in scientific and moral attainment. All in all, Dr. Prewitt was a fine example of the dignified, urbane, Christian gentleman and physician.

We do well to honor such a man. To his bereaved widow and family we tender our sincere sympathy.

Resolved, That this action be encribed on a memorial page of the society's transactions, and that a certified copy be sent to the family of the deceased.

October 29, 1904.

W. M. MCPHEETERS,

C. M. NICHOLSON,

J. M. SCOTT,

Committee.

Attest:

T. A. HOPKINS,

Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. J. S. Howell, President.

Dr. Richard Schmidt, Vice-President.

Dr. F. Janet Reid, Secretary-Treasurer.

Dr. Thomas Chowning, Delegate.

The Marion County Medical Society met in adjourned session November 11th, Dr. J. S. Howell presiding. Dr. Janet Reid reported a case of premature birth, in which the umbilical cord was found to be tied in a hard knot, about six inches from the child. The mother stated that she had felt movement within twenty-four hours of labor. The cord was presented at the society. Dr. J. J. Bourn read a very interesting paper on "The Abortive Treatment of Typhoid Fever" by means of free catharsis, with magnesium sulphate, the application of cold to the abdomen and a strictly milk

diet. Dr. J. J. Farrell read a practical paper on "Puerperal Sepsis," instancing two cases which recovered, one after thorough curettage, the other with uterine irrigations of boro-glyceride solution and hypodermoclysis. The doctor presented a specimen of double uterus found *post mortem*. This meeting of the society was one of the most interesting yet held. The attendance was good and the discussions animated.

H. L. BANKS, Reporter,

COOPER COUNTY MEDICAL SOCIETY.

Dr. J. D. Potts, President.

Dr. P. L. Hurt, Vice-President.

Dr. R. L. Evans, Secretary.

Dr. R. S. Holman, Treasurer.

The Cooper County Medical Society met at Dr. Hurt's office, Dr. J. D. Potts in the chair. The minutes of the last meeting were read and approved. Dr. Potts reported a very interesting case of obstruction of the bowel as the result of peritonitis two years previous. Dr. F. R. Smiley read an excellent paper on "Constipation as an Etiological Factor of Appendicitis." This paper was discussed by all present. By a vote of the society the hour of meeting was changed from 11 A. M. to 1 P. M. of the first Tuesday in each month. Dr. P. L. Hurt presented the names of H. D. Quigg and O. W. Cochran for membership. They were referred to the Board of Censors. Drs. Holman, Lionberger and Taylor were appointed to read papers at our next meeting. There being no further business the meeting adjourned to the first Thursday in December.

R. L. EVANS, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. A. W. Moore, President.
Dr. J. F. Wood, Vice-President.
Dr. C. W. Watts, Secretary.
Dr. U. S. Wright, Delegate.

The Howard County Medical Society met in regular session at the office of Dr. Watts, in Fayette, November 15th, Dr. Smith presiding. Dr. Wood, of Harrisburg, reported an interesting case of tetanus, young lady, 17 years, following a penetrating wound of the foot by a wood splinter. Serum was used but too late to be of avail. Death occurred on the tenth day. Dr. Champion reported a case of twin delivery with placenta prævia. After two weeks mother and twins were doing well. Election of officers was next in order and resulted as follows: President, Dr. A. W. Moore; vice-presidents, Drs. J. F. Wood and C. P. Magee; secretary and reporter, Dr. C. W. Watts; committee on program and scientific work, Drs. U. S. Wright, C. H. Lee and C. P. Magee; censors, Drs. C. O. Lewis, J. R. Champion and E. C. Haller; committee on public health and legislation, Drs. E. C. Haller, V. Q. Bonham and J. Y. Hume; delegate, Dr. U. S. Wright. The society adjourned to meet on the third Tuesday in December. C. W. Watts, Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. John W. Kyger, President.
Dr. E. H. Thraillkill, Vice-President.
Dr. E. L. Chambliss, Secretary.
Dr. L. W. Luscher, Treasurer.

The Jackson County Medical Society held its regular bi-monthly meeting in parlors of the Midland

Hotel on the evening of November 10th. The scientific program consisted of a paper by Dr. Gordan Beedle, upon the subject of "Intracranial Complications in Fractures of Skull," in which he demonstrated that some of the most important and dangerous complications are hemorrhages of epidural variety, due to lesion in the sinuses, especially the great longitudinal sinus, often filling the basic fossæ; hemorrhages of the subcortical variety where the lesion does not extend to the surface of the cortex resembling, in all, symptoms of an apoplectic condition, and compression from the hemorrhage presenting the condition existing in depression from a fragment, except that the latter would be localized at the point of depression. The doctor reported a very interesting case of skull fracture which had recently been under his care. Doctor Carl Sandzen presented a very interesting paper on "Light Therapeutics." This paper was an able discussion of the subject and the doctor enumerated several cases of skin lesions, which he had successfully treated by this means. Our county society is in a good condition, and as we are drawing nigh to the end of our fiscal year, we are working on a revision of our constitution and by-laws so that we can be in closer relation with the state association, and so that when we elect our new officers early in December we will be organized in accordance with the suggestions thrown out by our grandfather, the American Medical Association. We have been doing some work for the upbuilding of medical organization since we left St. Louis, by way of adding the names

of a number of good men to our membership roll, and we hope that when we come to report at the next state meeting it will be as a good representation of the profession in Jackson county.

E. L. CHAMBLISS, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. A. S. Herndon, President.
Dr. R. P. Davis, Vice-President.
Dr. G. C. Coffey, Secretary.
Dr. J. A. Baldwin, Treasurer.
Dr. S. Reidman, Delegate.

The regular monthly meeting of the Platte County Medical Society was called to order in Platte City, Wednesday, November 2d, by Dr. Herndon. The minutes of the previous meeting were read and approved. Dr. W. H. Coffey, of Kansas City, read a paper, entitled "The Common Cause of Rectal Diseases," which common cause he believes to be our habitual failure to respond to nature's call for emptying the lower bowel. Dr. Davis read a paper on "Pneumonia," in which he maintained that the increased fatality of pneumonia is due to the bacillus of la grippe. Dr. Chastain reported a case of recovery from intestinal obstruction without operation. Following liberal discussion of this last paper the society adjourned.

G. C. COFFEY, Reporter.

LINN COUNTY MEDICAL SOCIETY.

Dr. Kathryn Standley, Vice-President.
Dr. D. F. Howard, Secretary.
Dr. J. L. Burke, Treasurer.
Dr. F. W. Burke, Delegate.

The Linn County Medical Society met in regular session at Linneus,

October 25th. The meeting was well attended and much interest manifested. The following papers were read: Dr. Herman E. Pearse, Kansas City, "Retention of the Urine in the Male and Treatment;" Dr. F. W. Burke, Laeledge, "Anesthetics." Dr. Burke laid particular stress upon the point that more care should be used in the selection of the anesthetist than the choice of the anesthetic. Dr. J. W. Mason, Brookfield, "Ethics;" Dr. U. C. Dryden, Purdin, "Some Observations on Pneumonia." All of the papers were exceptionally good and freely discussed. The following resolutions were adopted on the untimely death of the president of this society, George Newton Lantz, M. D., of Brookfield, Missouri:

Resolved, That in his death we mourn the loss of one whose whole soul and life was given to the service of others, and whose genial personality was potent for good as he sat at the bedside of suffering. During the entire period of his service he was ever true to the higher ideals and a worthy exemplar of that portion of the ancient pledge of our faith, which says: "With purity and holiness will I pass my life and practice my art." His heart was always in sympathy with the afflicted and his presence a benediction.

Resolved, That in his death this society has lost a valuable and faithful member, the community in which he lived a highminded and progressive citizen, and to his bereaved family we extend our profound sympathy.

Resolved, That a copy of these resolutions be presented to the family and also that the same be published

in the local papers and be spread upon the records of this society.

The January meeting of this society will be held at Laclede. The Grand River District Medical Society will meet in Brookfield, Thursday, December 1st.

D. F. HOWARD, Reporter.

JOHN T. HODGEN DISTRICT MEDICAL SOCIETY.

Dr. T. H. Duckett, President.

Dr. S. A. Johnson, First Vice-President.

Dr. T. C. Boulware, Second Vice-President.

Dr. Ira Smith, Third Vice-President.

Dr. J. T. Lockwood, Secretary.

The John T. Hodgen Medical Society convened at Harrisonville, October 13th, Dr. M. P. Overholser presiding. The minutes of the previous meeting were read and approved. Dr. J. O. Jackson reported a case of sarcoma. Drs. Frankinberger and Thrailkill reported a case of horseshoe fistula. The treatment consisted in thorough opening of all sinuses and curettage. Dr. Warden read a paper entitled "State Care of the Insane." Dr. Frankinberger read a paper on "Early Treatment of Rectal Abscess." Dr. T. F. Lockwood read a paper entitled "Science of Medicine a Looted Profession." The doctor will revise this paper, which was greatly appreciated, for publication. Dr. McVey's demonstration of blood staining proved very interesting and enjoyable. Dr. Pearce read a paper on "Abdominal Tumors." Drs. Breerly and Griffith were elected to membership. Drs. McVey, Lyle, Thrailkill and Haire were made honorary members. The election of officers for the current year resulted as follows: President, T. H. Duckett; first vice-president,

S. A. Johnson; second vice-president, T. C. Boulware; third vice-president, Ira Smith; secretary, T. F. Lockwood. Papers will be read at the next regular meeting at in Lamar, January, 1905, by Drs. M. P. Overholser, of Harrisonville; G. D. Allee, of Lamar; M. G. Roberts, of Lamar; C. Wilson, of Nevada; A. L. Fulton, of Kansas City; F. W. Foster, of Butler; W. H. Allen, of Rich Hill, and A. H. Cordier, of Kansas City.

T. F. LOCKWOOD, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. W. T. Elam, President.

Dr. J. B. Reynolds, Vice-President.

Dr. Chas. Wood Fassett, Secretary.

Dr. J. J. Banbach, Treasurer.

Dr. O. B. Campbell, Delegate.

The last regular meeting of the Buchanan County Medical Society was held on November 4th, with an attendance of forty members. The committee appointed at a previous meeting to investigate the sanitary conditions of the several dairies of the city presented its report. Many dairies were visited and most of them found to be conducted on anything but sanitary lines. Specimens of milk examined demonstrated that a considerable quantity of the milk in daily use throughout the city was far below the standard. Much of it was diluted and the fat percentage was low. Further investigation along this line will be conducted by the society working in conjunction with the municipal health authorities.

The proposed amendment to the by-laws which was aimed at the disfranchisement of members of the society

who habitually absent themselves from the meetings, was defeated under the two-thirds ruling.

Dr. Porter presented a paper on "Prostatectomy." The author reviewed the latest literature on the subject, and gave an excellent comparative description of the most approved surgical technique employed in the removal of the prostate.

The subject of diphtheria was opened for discussion by Dr. Forgrave and thoroughly gone over, nearly every member present taking part in the discussion. The principal feature of the discussions was the almost unanimous approval of the present-day method of treatment of the disease, especially as regards the use of antitoxin. A resolution was passed endorsing the use of antitoxin as a prophylactic and a curative measure. The society adjourned to meet November 18th.

L. A. TODD, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.

Dr. Harry Tatum, Vice-President.

Dr. C. A. Jennings, Secretary-Treasurer.

Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society met in regular session in Salisbury, October 27th, at 8:30 P. M., Dr. M. B. Austin in the chair. Visiting physicians present were Drs. R. G. Epperly, of Prairie Hill, and L. L. Benton, of Kaseyville. The minutes of the previous meeting were read and approved. Dr. R. G. Epperly was unanimously elected to membership.

Dr. McEwen presented an interesting clinical case—a man fifty-five years of age, with chronic enlarge-

ment of testicle of six years' standing. The enlargement had increased very markedly within the last six months, and the patient suffered with lancinating pains in the gland. Animated discussion followed the presentation of the case. Dr. McEwen thought the growth malignant, and advised early removal. Dr. Welch agreed. Dr. Burton believed it to be a chronic inflammatory condition, perhaps tubercular, but not malignant, and advised a suspensory and other local treatment. The majority of members diagnosed the case malignant, and Drs. McEwen and Temple will operate in the near future, reporting the results to the society and to the JOURNAL.

Dr. Epperly read an excellent paper on "La Grippe." General discussion followed.

The essayists appointed for the next meeting were Drs. Welch and McEwen. Their papers will be read in Salisbury, November 24th.

C. A. JENNINGS, Reporter.

GRUNDY COUNTY MEDICAL SOCIETY.

The Grundy County Medical Society was to meet October 18th, but, owing to there not being a quorum present, the meeting was not called to order. The papers to have been read were reserved for the January meeting. The spirit of enthusiasm which has become so manifest in most of the organized counties of the state since the advent of the journal has reached some members of the Grundy County Medical Society, and by the time of the next meeting we look for the largest attendance in the history of the society, together with some excel-

lent papers which will be sent to the journal to be abstracted.

E. ALLEN, Reporter.

McDOWELL DISTRICT MEDICAL SOCIETY.

The McDowell District Medical Society met at Bland, Missouri, October 27, 1904, at the home of Dr. J. D. Seba. Drs. J. D. Seba and O. C. Fritts presented clinics, which were discussed by the society after being thoroughly examined by all the members. Following the usual routine business, Dr. J. D. Seba read a paper on "The Use of Forceps in Obstetrical Practice." After liberal discussion of this paper the society adjourned for supper, to reconvene at

eight o'clock P. M., when Dr. J. W. Nieweg read a paper on "Tuberculosis." Free discussion followed. After taking up several scientific subjects of much interest the society adjourned to meet at Owensville, on the fourth Thursday in April, 1905, where the following program will be rendered: Dr. J. J. Seba, "Annual Address;" Dr. Chas. F. Leach, "Malaria;" Dr. William L. Sharp, "Gonorrhœa;" Dr. J. J. Ferrell, "Indigestion;" Dr. W. E. Ferrell, "Typhoid Fever;" Dr. John Engelbrecht, not decided; Dr. James Jose, "Punctured Wounds of the Abdomen;" Dr. M. E. Spurgon, "Dysentery;" Dr. I. M. Owens, "Dislocations of the Hip Joint;" Dr. J. W. Nieweg, "Lymphangitis." J. W. NIEWEG, Reporter.

ABSTRACTS.

The Prevention of Appendicitis.—Wm. M. Harsha, in a paper under the above title, read before the Mississippi Valley Medical Association, states that available figures indicate that appendicitis is much more frequent in America than elsewhere. In Illinois, for example, the death rate from this malady in 1893 was 94 per million inhabitants; in Chicago 140 per million. The same high rate is approximated in other parts of this country, especially in those of similar latitude. Abroad, on the other hand, where the mode of living is different, there is less percentage of mortality from appendicitis. In England, for instance, in 1902 (last available statistics) the death rate from this cause was 45 per million.

Considering the causes that might be influenced by treatment the author believes errors of diet to be the most frequent. Attacks commonly follow immoderate eating or the ingestion of indigestible articles of food. The disease most frequently occurs in that sex where and at that age when faulty habits of eating and errors of diet are most common. Acute digestive disturbances cause irritation of the mucosa and stenosis of the base of the appendix, and this condition is followed by infection. Attacks are frequently ushered in by "colds," and may be by cholera morbus. Flatulent dyspepsia is held to be a frequent cause by many authorities. Flatulent indigestion, or constipation with fecal stasis in the cæcum, probably not

only favors the admission of fecal matter into the appendix, but by dragging and torsion causes kinking or closure of the lumen and abrasion of the mucosa, inviting infection. The author quotes George Rubin's experiments, which show how a distended cæcum may admit foreign bodies into the lumen of the appendix that could not be made to enter otherwise.

Right living is the treatment. It is easy to advise to do the operations, and in cases of progressive infection the author advises operation within twenty-four or forty-eight hours. He would also operate in recurrent cases, and in some after even the first attack. But there are those who absolutely refuse to listen to advice as to operation, and there are other cases where diabetes or other complications contraindicate operation. The individual case must be considered, its etiology and peculiarities studied and treatment adapted accordingly. In one set of cases we must cultivate immunity from colds; in another it is necessary to regulate the habits of eating; in still others to correct all digestive disturbance; proper exercise may be called for; or it may be necessary to evacuate the whole digestive tract, keeping it empty and insisting on strict recumbency. In all cases the proper hygienic conditions should be secured to maintain the vital resistance at the highest possible point.

During the past six or seven years Harsha has advised these measures of prophylaxis after the occurrence of an attack where for any reason he did not operate, and so far as he has been able to follow the cases there has been recurrence in not to exceed 20 per cent., and most of these were in young peo-

ple due, in part, he believes to greater frequency in the young, and in part because of lack of intelligent co-operation on the part of the patient.

Dr. Alexander McAlister says that the intestinal antiseptics all interfere more or less with the digestive function. The digestive ferments, whether in the body or out, cannot act normally in their presence. This is not the case with calomel. It does not retard a single normal process.

In the presence of free alkalies a small portion of calomel is converted into a black oxide, probably the only form in which the medicament is absorbed. This is still, however, a debated subject; but the mooted questions have only a passing interest, since the antiseptic effect is obtained so largely in an indirect way. There is direct antiseptic action, by reason of which, in a measure at least, the mercurial purgatives are so distinct and unique a class.

The point of greatest interest in the comparison of calomel with the other intestinal antiseptics in this indirect antiseptic action. Calomel liberates the stagnant bile, increases the pancreatic secretion, and stimulates all the intestinal glands. The result is not merely the characteristic large watery calomel stool, but—and this is the feature of greatest interest—the restoration of functions which make for a normal intestinal flora.

In normal digestion provision is made for the neutralization of acids that are no longer required, and for the removal of free alkalies when digestion is completed. In like manner provision is made for the destruction of normal bacteria when their work is

done, and for holding their growth within normal bounds during digestion.

Speaking especially of the treatment of children, calomel is our best intestinal corrective and antiseptic. It is now used more than ever before, and its scope of application is sure to increase. Small doses place the drug in easy control and enable the physician to gauge and prolong the therapeutic effects. At the present time 1-10-grain doses are used more frequently than any other by the profession in general. Smaller doses will come into larger use when the effect is better understood, the drug applied with more skill, and the former bitter hostility gone. That children literally fatten on calomel is a commonplace observation, according to the author.

As a rule the author administers 1-10-grain doses every hour till one grain has been given, or till evacuations occur. If the condition treated is diarrheal, smaller doses are employed or the interval lengthened. Whatever the condition, the first object in treatment is to impress the system by reducing abnormal bacterial activity. In gaining this point the combination of sodium bicarbonate with calomel acts beneficially by facilitating the conversion of the insoluble chloride into soluble compounds. —*Merck's Archives.*

Meat Eating and Appendicitis.—The comparative rarity or total absence of appendicitis in former days and its great and increasing frequency in the last decade or two have been more than once the subject of warm discussion. Some deny altogether

that appendicitis is more frequent now than in former years, claiming that the frequency is only an apparent one, because we are better diagnosticians; that a century ago appendicitis passed unrecognized, being diagnosed as inflammation of the bowels, typhlitis, etc. This view is strongly combated by many eminent surgeons, who claim that the older physicians were exceedingly careful and painstaking in their post mortem work, and could not have failed to notice and report inflammations of the appendix, if they had come across any.

The eminent surgeon, Lucas-Championniere, shares the latter view, and believes that one of the principal causes of the increase of appendicitis is to be found in the increase in meat eating. He recognizes that la grippe is also an important cause, but its influence is more of a predisposing character, while meat eating is the exciting cause. He addressed inquiries to various physicians, and the replies seem to corroborate his views. Dr. Stoicesco, of Bucharest, submitted statistics which show that, while in the city hospitals there were 221 cases of appendicitis among 51,817 patients, or 1 in 234, in the rural hospitals there were only 5 cases of appendicitis in 108,651 patients, or 1 in 22,000! This great discrepancy is explained by the author on the score that while the city dwellers are meat eaters, the rural inhabitants of Roumania are practically all vegetarians. Dr. de Langenhagen, during two and one-half years' practice in New Caledonia, has not heard of a case of appendicitis in a native or any Asiatic vegetarian, while he saw five cases among the meat-eating officials. Dr.

de Zovala, practicing at Guaranilla, Porto Rico, states that there is practically no appendicitis among the native population, which is absolutely vegetarian, while among the meat-eating Americans there have been numerous cases.

After citing other numerous instances, Dr. Lucas-Championniere says that he feels justified in these conclusions: Appendicitis is not a disease made "obligatory" by our anatomical constitution. It is only a recent development, and seems to have had its first origin in the grip. A meat diet plays a considerable role in its development, and a modification of the diet is of the greatest importance as a prophylactic.—*Editorial in Merck's Archives.*

Another Anti-Vaccination Lie Nailed.

—An item has been going the rounds of the press relative to the death of William Taylor, a child, at Port Huron, Mich., alleging that the parents believe that his death was caused

by vaccination. But an official report to the secretary of the state board of health clearly proves that the alleged belief had no foundation in fact. The report says that a short time after vaccination the child was taken sick with bowel trouble and had no medical attendance, the parents being Christian scientists. After the death of the child, the coroner called in a reputable physician and found the vaccinated arm, aside from a small scar, was exactly the same as the other, and showed no sign of having been inflamed. The physician and the coroner came to the conclusion that the child had died of enterocolitis. It appears that the parents belong to a sect whose members do not believe in vaccination, nor in calling a physician, and undoubtedly would have been pleased to have the death recorded as due to vaccination, especially as otherwise there is a suspicion as to the effect of the lack of proper medical attendance for the relief of the enterocolitis.—*New York Medical Journal.*

BOOK REVIEWS.

The Transactions of the Thirty-Seventh Annual Session of the West Virginia State Medical Association, 1904.

International Clinics, Edited by A. O. J. Kelly, A. M., M. D., Volume iii, Fourteenth Series. J. B. Lippincott Company, Philadelphia, 1904. Price, cloth, \$2.00 net. This volume of the fourteenth series contains a number of most interesting papers.

The section on syphilis comprehends over 120 pages of valuable matter, including a number of excellent plates. That this section is of especial value is clear, the contributors being such eminent syphilographers as Alfred Fournier, William S. Goothiel, Ohmann-Dumesnil and Thomas R. Neilson, together with J. W. Ballantyne, on "Fetal Syphilis;" William G. Spiller, on "Syphilis of the Nervous System;" G. Milan, on "Syphilitic Headache

and Lumbar Puncture." In the section on treatment Ismar Boas' contribution, on "Rest Cure in Chronic Constipation," solves that which has been to many a serious problem. T. Stuart Hart contributes an excellent paper on the treatment of diabetes mellitus, Lawrason Brown an exhaustive paper on the "Treatment of the Digestive Disturbances Occurring in Pulmonary Tuberculosis." The section on medicine has papers by such men as W. H. Allechin, who writes on "Indigestion;" William H. Katzenbach, on "Mitral Obstruction and Chronic Bronchitis," and Andrew Duncan on "Scurvy." No less rich in excellent contributions are the sections on surgery and gynecology. Altogether we believe this to be one of the best volumes of this most excellent series.

Proceedings of the Connecticut Medical Society, 1904. One Hundred and Twelfth Annual Convention held at New Haven, May 25th and 26th. Published by the Society. This volume of nearly 600 pages is nicely gotten up and well bound. Containing a number of very good papers it is a desirable addition to the physician's library.

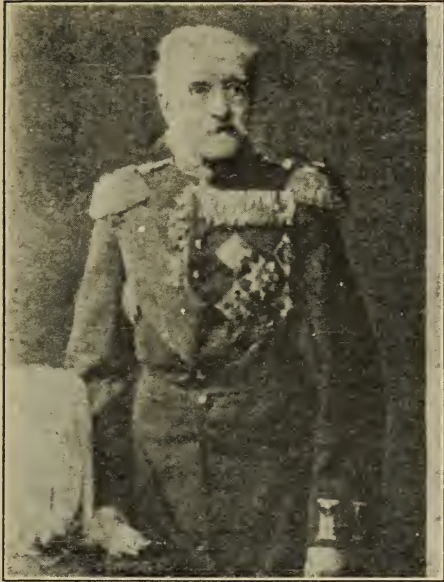
Dissection of the Human Body—An Outline for Students Based Upon Morris' Text-Book of Anatomy, by S. M. Yutzy, M. D. Instructor in Osteology and Demonstrator of Anatomy in the University of Michigan. Phil-

adelphia: P. Blakiston's Sons & Co. 1904. We quote from the preface: "The objects of this outline are to direct the student in the order in which to pursue his work and to connect the actual dissection of the cadaver with descriptive anatomy. Also, to inform the student where the description of each structure is found in Morris' Anatomy." Those who have dissected with Gray or Morris and no outline, will at once recognize the value of this little book to the student of anatomy.

The Houseboat Book. The Log of a Cruise from Chicago to New Orleans. By William F. Waugh. The Clinic Publishing Company, Chicago, 1904. This little book of something over 200 pages gives Dr. Waugh's experiences, not all pleasant by any means, during a trip from Chicago to New Orleans by houseboat. The details of the journey will prove of interest and great value to anyone contemplating a similar trip.

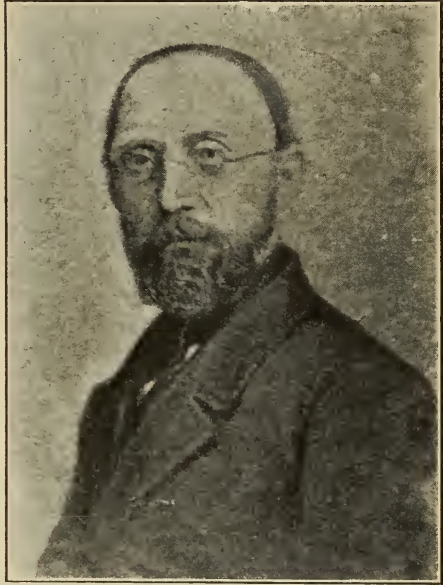
P. Blakiston's Sons & Co., Philadelphia, have gotten out a general catalogue of medical books, which, together with their monthly journal, *The Medical Book News*, contains title and price of all the leading medical books published. The catalogue is interleaved that it may be kept up-to-date with titles of books given in the journal. It is of convenient size and bound in veneered board, the price being 25 cents.

BIOGRAPHICAL SKETCHES.



BERNHARD VON LANGENBECK.

Bernhard von Langenbeck, founder of the German Congress of Surgeons, of which he was for many years president, exerted more influence upon surgery all over the world than any one other man. To him, more than to any other, is due the great importance which pathology is given today in every surgical curriculum. He was for a time a teacher of physiology, but subsequently became the successor of Dieffenbach in the University of Berlin. Genial, learned, indefatigable, he was the ideal accomplished teacher. It would be impossible in any short biographical sketch to do justice to so distinguished a man, to whom the profession owes so much. It has well been said that perhaps the highest testimonial that could be given would be the enumeration of the men who were ever and always his enthusiastic admirers. Born in 1810, he died in 1887.



RUDOLF VIRCHOW.

Rudolf Virchow, German anatomist and anthropologist, was born in Pomerania in 1821. He studied medicine in Berlin, and in 1849 he distinguished himself by attaining in Wuerzburg a professorship, the highest grade in the career of the learned. It is said that while there he studied every night until three A. M., and yet was always out at work by seven. In 1856 he accepted the chair of pathological anatomy in Berlin, where he introduced microscopical anatomy. At the naturalists' conference at Innsbruck, in 1869, he was one of the founders of the German Anthropological Society. In 1873 he became a member of the Academy of Sciences. His series of popular lectures has done much toward spreading scientific knowledge among the people. His first edition of *Cellular Pathology* appeared in 1858, his great work on tumors in 1866.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison	E. E. Richards...	Tarkio	A. McMichael...	Rockport.
Audrain	C. T. Vernon....	Mexico	C. A. Rothwell...	Mexico.
Bates	A. E. Lyle	Butler	E. N. Chastain...	Rich Hill.
Boone	R. S. Austin....	Halsville	J. M. Fisher....	Columbia.
Buchanan	W. T. Elam....	St. Joseph....	Chas. W. Fassett.	St. Joseph.
Butler	Chas. F. Greene...	Poplar Bluff...	J. J. Norwine...	Poplar Bluff.
Caldwell	G. W. Goins....	Breckenridge	Tinsley Brown...	Hamilton.
Callaway	C. H. Christian...	New Bloomfield.	M. Yates.....	Fulton.
Camden	G. M. Moore....	Linn Creek.....	G. T. Myers....	Macks Creek.
Carroll	W. C. Baird....	Bogard	R. F. Cook.....	Carrollton.
Cass	H. Jerard....	Pleasant Hill...	J. S. Triplett...	Harrisonville.
Chariton	M. B. Austin....	Brunswick	C. A. Jennings...	Salisbury.
Clark	H. W. Harris....	Winchester	A. C. Bridges....	Kahoka.
Clay	L. J. Jones....	Linden	F. H. Matthews...	Liberty.
Cole	R. E. Young....	Jefferson City...	G. Ettmueller...	Jefferson City.
Cooper	J. D. Potts....	Boonville.....	R. L. Evans.....	Boonville.
Crawford	W. A. Metcalf...	Steelville.....	A. H. Horn.....	Steelville.
Current River...	J. A. Chilton....	VanBuren	Frank Hyde....	Eminence.
Daviess	W. N. Keener....	Jamesport	M. A. Smith....	Gallatin.
Grundy	J. A. Asher....	Trenton	W. D. Fulkerson.	Trenton.
Henry	J. M. Miller....	Montrose	F. M. Douglas....	Clinton.
Holt	B. T. Quigley...	Mound City	J. F. Chandler...	Forest City.
Howard	A. W. Moore....	Fayette	C. W. Watts....	Fayette.
Howell	J. C. B. Dixon...	West Plains....	H. C. Shuttee...	West Plains.
Iron	W. R. Gay	Ironton.....	Ira A. Marshall.	Ironton.
Jackson	J. W. Kyger....	Kansas City....	E. L. Chambliss...	Kansas City.
Jasper	R. L. Neff.....	Joplin	J. D. Pifer.....	Joplin.
Johnson	J. I. Anderson...	Warrensburg	E. H. Gilbert...	Warrensburg.
John T. Hogden.	T. H. Duchett...	Harrisonville	T. C. Boulware...	Foster.
Laclede	J. M. Billings...	Lebanon	J. A. McComb...	Lebanon.
Linn	G. N. Lantz....	Brookfield	D. F. Howard...	Brookfield.
Livingston	R. Barney.....	Chillicothe	H. M. Grace....	Chillicothe.
McDonald	E. F. Doty.....	Anderson	M. L. Sellers....	Anderson.
McDowell Dist.	John D. Seba....	Bland	J. W. Nieweg...	Owensville.
Macon	W. E. Webb....	Macon	G. B. Rush.....	Macon.
Madison	G. W. Greenwood.	Fredericktown...	C. U. Davis....	Fredericktown.
Maries	O. C. Fritts....	Lois	O. N. Schudde...	Vienna.
Marion	J. S. Howell...	Hannibal	F. Janet Reid...	Hannibal.
Mercer	H. P. Chesmore...	Princeton.....	C. R. Buren....	Princeton.
Miller	J. W. Temple...	Eldon	G. D. Walker....	Eldon.
Mississippi	A. W. Chapman...	Charleston	H. L. Reid.....	Charleston.
Moniteau	J. B. Stewart...	Clarksbury	J. B. Norman...	California.
Monroe	G. B. Dysart...	Paris	W. B. A. McNutt.	Monroe City.
Morgan	J. D. Hubbard...	Versailles	J. T. Beale....	Versailles.
Nodaway	J. A. Larrabee...	Barnard	F. R. Anthony...	Maryville.
Newton.....	J. W. Lamson...	Neosho	Horace Bowers...	Neosho.
Pettis	W. C. Overstreet.	Sedalia	W. S. Shirk....	Sedalia.
Phelps	W. H. Breuer...	St. James	S. L. Baysinger...	Rolla.
Platte	A. S. Herndon...	Camden Point...	G. C. Coffey....	Platte City.
Putnam	C. H. Carryer...	Hartford, Mo....	T. A. Townsend...	Unionville.
Ralls	O. B. Hickley...	New London	J. D. Downing...	New London.
Randolph	J. C. Ridings...	Cairo	D. A. Barnhart...	Huntsville.
Ray	Jas. W. Smith...	Richmond	C. B. Shotwell...	Richmond.
Reynolds	J. M. Lowery...	Centerville	T. W. Chilton...	Corridon.
Saline	D. C. Gore.....	Marshall	D. F. Bell.....	Marshall.
St. Clair.....	W. Cline.....	Appleton City...	E. D. Miles....	Osceola.
St. Louis.....	B. M. Hypes...	2005 Victor St...	T. A. Hopkins...	Century Bldg.
St. Louis Co....	R. D. Moore....	Central	H. G. Wyer.....	Kirkwood.
Schuyler	J. T. Jones....	Queen City.....	H. E. Gerwig...	Downing.
Scotland	W. E. Alexander.	Memphis	O. F. File.....	Memphis.
Shelby	Wm. Carson....	Shelbyville	L. W. Dallas....	Hunnewell.
Stoddard	T. B. Turnbaugh.	Bloomfield.....	R. D. Corbin...	Bloomfield.
Sullivan	J. C. Kissinger...	Milan	G. S. Milnes....	Milan.
Washington.....	J. A. Eaton....	Belgrade	W. S. Smith....	Belgrade.
Wayne.....	L. M. Pettit...	Greenville.....	I. N. Barnett...	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

COUNTY.	DATE OF MEETING.
Atchison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Bi-Monthly. First and Third Friday.
Butler	Monthly
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	Monthly. Second Tuesday.
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	Quarterly. First Mondays Feb., April, June, Aug., Oct., Dec.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper	Monthly. First Tuesday.
Crawford	Monthly.
Current River.....	Quarterly. August, November, February, May.
Daviess	Monthly.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Monthly.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of November, January, March.
Iron	Monthly. First Saturday.
Jackson	Bi-monthly. Second and Fourth Thursday.
Jasper	Bi-monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen.....	Quarterly. October, January, April, July.
Laclede	Bi-annual. First Mondays May and November.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Semi-Annually. Fourth Thursday in October.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Monthly.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Mercer	Monthly. Second Thursday.
Miller	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Newton	Monthly.
Nodaway	Monthly. Second Tuesday.
Pettis	Monthly.
Phelps	Quarterly. March, June, September, December.
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County.....	Monthly. Second Wednesday.
Schuyler	Bi-monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard.....	First Wednesday in March, June, Sept. and Dec.
Sullivan	Monthly.
Washington.....	
Wayne.....	Monthly.

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

OFFICERS MISSOURI STATE MEDICAL ASSOCIATION.

President: JABEZ N. JACKSON, Kansas City, Mo.

Vice-Presidents:

S. M. BROWN, Monroe City; H. W. LATHAM, Latham; T. M. POTTER, St. Joseph;
W. S. THOMPSON, Armstrong; J. C. ROGERS, Kansas City.

Secretary: C. M. NICHOLSON, St. Louis.

Assistant Secretary: E. J. GOODWIN, St. Louis.

Treasurer: J. FRANKLIN WELSH, Salisbury.

COUNCILLOR DISTRICTS.

FIRST DISTRICT.—F. B. HILLER, Kahoka. Counties, Clark, Scotland, Schuyler, **Adair, Knox, Lewis.**

SECOND DISTRICT.—J. B. BRUMMALL, Salisbury. Counties: Linn, Carroll, Chariton, Livingston, Grundy, Sullivan, Mercer, Putnam.

THIRD DISTRICT.—E. H. MILLER, Liberty. Counties: Clay, Ray, Platte, **Clinton, Caldwell, DeKalb, Gentry, Harrison, Worth, Davies.**

FOURTH DISTRICT.—C. H. WALLACE, St. Joseph. Counties: Buchanan, Holt, Atchison, Nodaway, **Andrew.**

FIFTH DISTRICT.—L. W. DALLAS, Hunnewell. Counties: Macon, Shelby, Marion, Randolph, Monroe, Ralls.

SIXTH DISTRICT.—WOODSON MOSS, Columbia. Counties: Audrain, Callaway, **Montgomery, Warren, Pike, Boone, Howard.**

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NINTH DISTRICT.—B. M. HYPES, St. Louis. Counties: **St. Genevieve, Cape Girardeau, Perry.**

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Counties in bold face type not yet organized.

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ORIGINAL ARTICLES.

TREATMENT OF EPILEPSY.

BY GIVEN CAMPBELL, M. D., St. Louis, Missouri.

Notwithstanding the flood of new light thrown on epilepsy by the more favorable surroundings of the patient, the better facilities for his observation and the opportunities for a more scientific study of his condition which has come with the colony care of these unfortunates, epilepsy yet is as it was since the days of Hypocrates, the opprobrium medicorum of the general practitioner. Such being the case, it is with no little hesitation that I have decided to present this paper on a treatment which I fear many have considered barren in results. That such treatment is often barren where it should be successful must be my apology. The writer believes that in the judicious treatment of epilepsy the physician can accomplish results more satisfactory to the patient than in any chronic disease with which the neurologist has to deal. That the problems involved in such a result are not understood by all, seems certain. It is generally known and undisputed that bromine in its many combinations is the sheet anchor of epilepsy's successful treatment. Too many phy-

sicians, however, seem to think that a patient with epilepsy can get all the benefit that is his due by giving him a prescription containing bromide of potash and letting him pass out of notice. How many patients have been made worse rather than better by such a proceeding? In how many cases has the patient been reduced to a physical and mental wreck, not by his disease, but by his treatment? It is well known that a proper dose of bromide will control epileptic seizures. It seems less known that too large a dose can aggravate them. Far too few physicians realize that bromine is a very edged tool, capable of good if pushed just far enough, just as capable of evil if allowed to go too far, and, furthermore, that to accomplish the good it must often be pushed right up to the limit, beyond which harm would ensue; that this limit is a varying one, depending on many and changing elements in the patient's condition, which must be kept constantly in mind.

But in considering some of the problems involved in epilepsy's treat-

ment certain statements as to the nature of epilepsy must be made. And, first, let me say that all symptoms spring from the brain cortex. All are due to perverted action here. In estimating the relationship between cause and effect, between the over-irritable brain tissue and the irritating causes that are attacking it, such as toxins, local irritations, cerebral tumors, the sympathetic effect of such peripheral irritations as a tight prepuce or diseased ovary, we must remember that an ounce of over-irritability goes farther here in being responsible for epilepsy than a pound of the various irritants. That, according to Gower's dramatic illustration, the irritant is the spark that falls on a pile of sand or on a pile of gunpowder. But on what, then, does the irritability of the cortex depend? Largely on heredity and, still more frequently, on slight vascular injuries that occur at or soon after birth. The epilepsies that have followed the grosser vascular cerebral diseases of infancy, such as the cerebral palsies, have been known and recognized for a long time, but it has been only recently that the connection between epilepsy and the spasms of infancy has been understood in its true light. These spasms, usually occurring during the course of various infectious fevers, are often not a part of the epilepsy that the child develops later in life, but are a cause of it. Such spasms are often due to a more or less severe meningo encephalitis, which *occasionally* leaves gross brain lesions in its train, but more frequently is recovered from, leaving in its wake nothing more than a slight cortical sclerosis, and just as partial or so-called Jacksonian epilepsy starts from

a single scar in the motor region, following some gross injury, so general epilepsy comes as a result of these many small sclerosed areas distributed over various parts of the cortex. But be the cause what it may, the condition to combat is this irritability of the cortex. Now, this irritability is always increased and its control rendered more difficult if, through a repetition of epileptic attacks the brain cortex forms a habit of explosive discharge. The fact that after a nerve impulse has once passed along a certain tract in the brain it can pass that way the next time more readily is axiomatic in brain physiology. It is the foundation of memory, and lies at the very root of all education. What holds true for physiological processes probably holds much more true for those violent discharges of nerve energy which constitute the epileptic attack, for not only do they in a physiological sense more deeply impress the nerve cells through which they pass, but they leave in their wake minute areas of organic change which act as future points of lessened stability. And thus perverted habit and structural impairment go hand in hand, each attack leaving its slight but ineffaceable mark on that most delicate of all tissues, the brain cortex. The time will come sooner or later when the influence of repeated paroxysms will outweigh in importance the primary causes that produced them. Let us illustrate: A patient receives a blow on the head causing injury to a small area of the motor cortex for the right arm. As a result he develops a Jacksonian epileptic attack. The result of this condition, if he is untreated, will probably be that sooner

or later he develops a second attack, but this second attack will involve more muscles than the first, will be more severe. Subsequent attacks will come and cause the spasm to spread from the arm area to that for the face and leg, and, finally, the nerve storm, gathering intensity with its repetition, involves so much of the cortex that consciousness is blotted out, the spasms involve the entire body, and for all practical purposes his epilepsy is as general and is now as much beyond relief by treatment of the local cause as if it had been general from the start. Now, what holds true for epilepsy starting from a single focus is largely so for what we call general epilepsy starting from multiple foci of irritability. And right here is the key note to treatment. If our patient with local epilepsy had been treated promptly—if the offending focus had been removed and treatment looking to a lowering of cortical over-irritability had been instituted at once—the chances of a complete cure would have been great. So, in many cases of general epilepsy, the multiple changes in the cortex leading to its over-irritability finally reach a stage where an epileptic attack occurs. If *at once* treatment is instituted, if means are taken to lessen the irritants affecting the cortex, and if measures are employed to lessen the irritability of the brain, there is good chance of our being able to hold this irritability below the level of explosive discharge until the brain has regained its stability. And when we remember that for an attack to occur there must be an over-balancement of the stability of the nerve tissues by irritants probably largely removable; that at first

the balance is almost evenly swung; that after a time the brain may readjust itself if given a chance, we readily see the hope of treatment lies in stopping the attacks.

As has been said, bromine, with proper adjuncts, in the many cases will accomplish this result. And in cases that have become too inveterate for cure it will obtain a benefit for the patient fully repaying him for all the sacrifices to which he is subjected.

It is my object to present to this society some methods that I have used in administering the bromides in connection with my results obtained in thirty-five patients and extending back in some cases six years.

And first as to methods: The object in view is to keep enough bromine in the patient's tissues to be just short of their therapeutic saturation. When over saturation occurs, toxic symptoms develop. There is a narrow margin between saturation and an amount that will control the disease. A variation in either direction means renewed attacks. Success demands that one keep accurately within this margin. In adapting bromine to this end, it is well to remember that the average effect of several days' dosage must be considered rather than the influence of any single dose, the remedy forming its therapeutic unions slowly and being eliminated more slowly still.

The clinical picture of a patient under the full therapeutic influence of bromine is about as follows: He appears slightly listless, the pupil is somewhat dilated. Unless the dose has been pushed too far or the bowels neglected, the tongue is not coated

nor the breath foul. The patient sleeps unusually sound at night and, when unoccupied, is apt to doze during the day. The pharyngeal reflex may or may not be diminished; the same holds true for the knee jerk. Children will occasionally wet the bed. Standing with eyes closed and feet together, the patient will often slightly sway. While not seriously inconvenienced, he is a trifle too listless for his comfort. There would be danger were he long in this condition that he would take insufficient exercise, and that this, or an attack of constipation, would lessen his elimination of bromine and permit toxic accumulation. He would, at all events, have to be constantly watched. And yet that, at stated intervals, he attains a dose where the signs of full bromine effect are plain, is essential to the proper control of the disease. The method employed by the writer to attain this control, while sparing the patient the inconvenience and dangers of being always on the brink of bromine over-saturation, is that employed by the French school and called by them the *dose suffisante*. This consists in administering a daily dose of bromide of soda for one week, which one feels quite sure is less than enough to cause over-saturation. The patient is seen once a week and the dose is increased one gramme each week until the symptoms indicating full bromine effect are produced. At the end of this week the patient's daily dose is reduced two grammes. During this second week the bromine that produced the full effect is being eliminated from the system, and what remains of it allows the lessened dose to hold the patient well within the margin of

safety, while, at the same time, giving him relief from the listlessness to which he was subjected during the latter part of the previous week. He is now alert, energetic and usually much clearer mentally than he was while taking no bromide at all. The pupils are one millimeter or one and a half millimeters smaller. The next week the dose is increased by one gramme, for now most of the bromine taken on his full dose week has left the system and a larger dose is required to hold him in a safe condition. He continues alert and completely himself during this week, and the third week he is replaced on his full dose. At the end of this week his pupils should be measured, and if they are dilated and his general condition indicates full dosage, his next three weeks dosage is to be repeated. If neither pupils nor general condition gives signs of full dosage, the following week his daily dose should be increased by one more gramme. This dose will almost certainly give the above-described signs of therapeutic saturation, and it, instead of the previous dose, should be considered his high week's dose. He needs now to be seen but once in three weeks, that is at the end of every third week, or high dose, when it can be seen whether his dose is sufficient or needs changing. It will be found that after the full dose has been attained its influence on the attacks will be noticeable almost at once. In the few cases where this is not so, the writer believes it is due to an insufficient or improper therapeutic union of the bromide with the nerve cells involved in the attack and the form of administration is changed.

Thus, if the patient is taking the bromide of soda, a change is made to the bromide of potash. This failing to control the attacks, after signs of full dosage are established, the patient is put on the mixed bromides of soda and magnesium, and a teaspoonful of tincture of passiflora is given twice daily. By one of these three changes, practically every case can be very satisfactorily controlled, provided the symptoms indicating therapeutic saturation are attained with a reasonably small dose of bromine. Occasionally, however, a patient will be met who requires such large amounts of bromine to produce saturation that his digestion and nutrition are seriously impaired and very troublesome acne produced. In these cases great satisfaction is gotten from a resort to the hypochlorinization or so-called salt starvation method, my experiences with which are reported in a previous paper.

A few additional details as to the practical carrying out of the treatment may not be amiss. First, it is almost essential that some one other than the patient is to oversee the carrying out of the treatment. Choose some one devoted to the patient's interests and charge that person with giving the medicine, enforcing the directions as to diet and hygiene, and with keeping a written account of all the attacks and symptoms. Furnish him with an accurately marked glass, measuring drams, and if a 25 per cent. solution of the bromide be used a dram will represent a gramme of salt. With sodium bromide it is well to be sure the salt, which is very hygroscopic, has not absorbed too much water before it is weighed out, thus, of course,

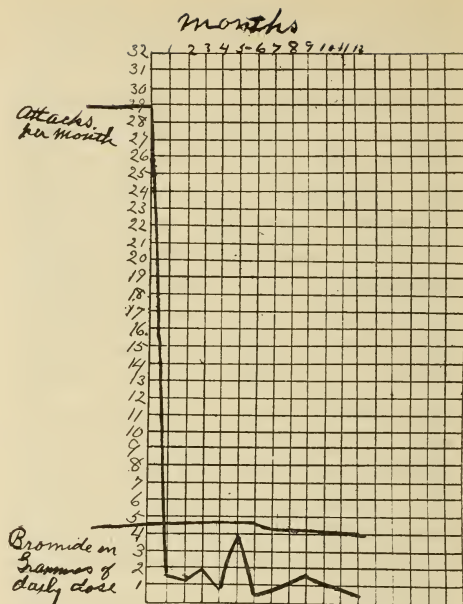
weakening its bromine content. At the commencement of the treatment it must be clearly understood that, for any permanent results to be attained, the treatment must be followed implicitly for three years. That this means taking medicine every day for that time and submitting absolutely to directions. I have generally found it much better to change the dose on Sunday of each week, seeing the patient on the Saturday that completes the dose, the effects of which I wish to observe.

As a rule I find it best to divide the daily dose in two portions, giving one after breakfast and one at bed time, giving it always well diluted. Occasionally with women, the attacks occur principally at the time of the menses, it is then well to continue the high dose during two weeks and causing this dose to coincide with the time of menstruation.

In directing the diet and hygiene the individualities of the patient must be largely considered. To all patients it is recommended that they take a warm soap tub bath twice a week. That they take some out-of-door exercise, weather permitting, every day, and, where possible, some light out-door occupation, safe for an epileptic, is enjoined. Indulgence in any alcoholic stimulants is usually to be forbidden. This prohibition applies also to tobacco and, in the writer's opinion, to tea and coffee. Foods that are apt to cause fermentation are to be discriminated against. Deserts, containing cane sugar, should be forbidden, as should all other forms of sweets, except one teaspoonful of sugar at a meal, used as the patient chooses. The patient invariably should

live on plain, digestible food. Children especially should avoid substances liable to mechanically over-irritate the digestive tract, such as grape skins. Nuts seem to be especially injurious and should be forbidden. The question of meats is an important one, but varies with the individual. Many epileptics eat too much; especially too much meat. With these cases eating between meals should be forbidden, and they should have meat or eggs but twice daily, and should never be helped to meat twice at any meal. Less frequently epileptics eat too little. In the few cases that increased exercise will not correct, bitter tonics are of use. In these cases a fourth meal is often advisable. Probably the best single article of the epileptic's diet is milk, of which he is to take two or three glasses daily. The bowels should be carefully watched. Attacks of constipation, with coated tongue, should be promptly met by broken doses of calomel followed by a saline. Where there is a constant tendency to intestinal autotoxæmia, with mushy, unformed stools, I have found much benefit from bran and graham gems, baked from equal parts of bran and graham flour. If made fairly moist and eaten hot, with plenty of butter, they are very palatable.

I have embodied in a chart my results, averaging it for all the cases reported. The average number of major



attacks per month that had been present for six months before treatment is shown at the commencement of the seizure line, and the average number per month while under treatment for the first year is shown in this line's continuation. All spells with spasm or falling are counted as major attacks. The average amount of bromide is also shown on the chart. A chart showing treatment in a severe case, which is not readily controlled by ordinary administration of bromide, is given. The seizures and bromide are charted by the week. The next year's treatment is much more satisfactory in this case under salt starvation.

SCARLET FEVER.

BY ROBERT D. HAIRE, M. D., of Clinton, Missouri.

Scarlet fever is perhaps more often attended with diagnostic difficulty than any of the acute infectious diseases, owing to its many and varied types, which range from the mildest form, "scarlatina simplex" to the most malignant "scarlatina maligna." Between these extremes, an almost endless variation from the normal, shades from one to another so gradually that any sharp differentiation into groups is impossible. To this fact is also due the difficulty in distinguishing it from other contagious and eruptive fevers, as well as the non-infectious rashes caused by such drugs as quinine, belladonna, chloral and the coal tar derivatives.

From personal experience I have found the following points of diagnostic value:

Rashes, caused by drugs, are misleading, from the fact that they are ushered in by fever and appear upon the face and other locations usually characteristic of scarlet fever, so, also, are the toxic erythemata, which occur in the course of septic infection, but such cases do not present the enlargement of glands typical of scarlet fever.

In rubeola, rubella and the various forms of erythemata, if the cases are typical the diagnosis will be easily made.

The characteristic symptoms of scarlet fever are the abrupt onset, high temperature, sore throat and vomiting, with the early appearance of a rash made up of minute, brightly injected puncta, slightly elevated and closely studded together, forming a

uniform or finely mottled surface, which frequently becomes confluent.

In measles the rash appears first upon the face, then spreads slowly over the body, but it is always "measley" and never confluent.

In the irregular cases, however, the diagnosis must rest upon the other symptoms, particularly those constitutional, as too much reliance upon the rash alone is always hazardous. Even desquamation is of only relative value, since dermatologists recognize the fact that it will follow any scarlatiniform erythemata which has been characterized by sufficient inflammatory change in the skin.

In this connection, however, I would impress upon you two points characteristic only of scarlet fever, viz.: The tendency of the epidermis to split just beneath the free border of the nail, then peeling off down the finger, and the persistence of the desquamation, which continues often from five to six weeks.

It is the mild form of scarlet fever which most puzzles the physician, those cases in which the fever is insignificant, the throat symptoms, such as to demand little or no attention, and even the rash so slight that it may be easily classed among the minor ailments. It is to the various gradations of this class that a recent epidemic of eighteen months' duration visited our city.

During that period there were in all 110 cases reported to the health officer. Of this number there were five deaths, two due to diphtheritic complications, two to nephritis, and one,

cause unknown. The epidemic displayed many phases of the disease—some were confined to their beds but a short time, or not at all, and doubtless many were never attended by a physician. The majority of cases were of moderate severity, the average period of incubation being from two to six days, while a number of cases were noted where one member of a family, constantly exposed, did not contract the disease for two weeks.

The invasion was abrupt, the average temperature ranging from 100° to 103° F., accompanied by vomiting and sore throat; in about twenty-four hours the rash appeared first upon the neck and chest, then spreading over the entire body. The highest temperature, rarely exceeding 104° F., was coincident with the full eruption, decreasing correspondingly as the rash faded. In many cases there was slight swelling of the tonsils, fauces and uvula, accompanied by pain upon swallowing.

While the fever was at its highest the patients were restless, thirsty and sometimes slightly delirious; nearly all showed marked prostration and anemia. Otitis in a mild form occurred in a number of cases, indicated by earache and discharge, but the most pronounced sequelæ of the epidemic was scarlatinal rheumatism, affecting principally the joints of the hands and feet for a few days, and a mild form of post-scarlatinal nephritis.

Since there is no specific for scarlet fever, my treatment consists in averting complications and trying to render them less severe when they do occur. Mild cases require little or no

medication, as a rule they receive too much. The patient should be kept in bed and given a light diet. Milk is always to be recommended, either plain or peptonized, followed by broth, eggs and other easily digested food as improvement justifies, care being constantly exercised not to overtax the stomach, either by the quantity or quality of food.

The bowels should be first moved mildly by small doses of calomel and later kept open by enemata rather than by cathartics. Water should be given frequently and freely because of its beneficial effects upon both kidneys and bowels. In fact, it should be recognized as one of the chief therapeutic agents in the treatment of the disease.

Since a high temperature is normal in scarlet fever, it requires no special treatment unless it runs continuously above 104° F. In that event it is best reduced by means of the cold bath, cold pack or sponging, rather than by antipyretic drugs. For the country practitioner, either the cold pack or sponging will be found most expedient owing to the limitations of his environment, besides minimizing the danger from shock.

In mild or moderately severe cases stimulants are not generally required, but with the first indication of the pulse becoming weak, rapid or irregular, accompanied by a feeble heart-sound, stimulants should be given. Alcohol or strychnia in combination with digitalis may be used with advantage. The throat and nose are usually more injured than benefited by overzealous attempts at local treatment, the best results being obtained,

not by active and poisonous antiseptics, but by mild, cleansing washes applied frequently and freely.

Too much stress cannot be placed upon the frequent microscopical and chemical analysis of the urine during the illness and for some time afterward; even in the mild cases late nephritis is a common sequela. During convalescence, when necessary a tonic of iron may be used effectively. With the first signs of desquamation the skin should be bathed with warm water anointed with plain or carbolized vaseline, this treatment continuing throughout the period.

Rigid quarantine regulations should be enforced; laxity in this regard is largely responsible for the spread of the disease. In our own city the patients were isolated about thirty days when, after a house fumigation of sulphur and formaldehyde they were allowed to attend school, while many having the disease in its mildest form doubtless escaped quarantine altogether. As the disease is most contagious at the height of the febrile stage and during desquamation, complete isolation of the patient should not be less than forty days, and as much longer as there is purulent discharge from ear or nose, and until desquamation ceases.

Superfluous furniture, drapery, etc., should be removed from the sick room at the outset and the room kept as clean as possible and thoroughly ventilated. All excreta should be immediately disinfected with carbolic acid or formaldehyde, the bedclothes, linen and vessels used similarly treated before being boiled. It is a fallacy to suppose that vessels con-

taining antiseptic fluids placed about the room will be effective in preventing the spread of the disease, and too much reliance cannot be placed in fumigation by means of steam impregnated with medicinal agents.

The only safe prophylactic consists in burning all articles which cannot be properly disinfected and boiled, then washing the walls of the room, floor and furniture with boiling water containing a solution of sulphate of zinc or corrosive sublimate, 1 to 1000. Both the isolated nurse and the physician in attendance should exercise every known precaution to prevent contagion. A gown, which may be easily removed upon leaving the sick room may be used. both should disinfect their hands and face and use daily an antiseptic gargle and nasal spray.

Bearing in mind the serious sequelæ which often attends scarlet fever, even in cases of moderate severity, and the fact that from the mildest form the most malignant may be contracted, the burden resting upon the physician in charge cannot be lightly estimated. Upon him depends not only the responsibility of the patient and its future health, but the safety of the community as well. If he be conscientious in the discharge of his duty, he will see that all necessary prophylactic measures are complied with, that a rigid quarantine of not less than forty days is enforced, and that a careful examination of the patient be made before it is allowed to mingle with other children. Then, and then only, can an epidemic be averted.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

BY H. C. SHUTTEE, M. D., West Plains, Mo.

The importance of the early diagnosis of pulmonary tuberculosis is evident when we recall the appalling annual death rate from this disease, and its necessity becomes the more urgent when we remember that in its incipency it is curable in a large proportion of cases, estimated at from 50 to 90 per cent., and that very many that now prove fatal could be cured if the necessary climatic, hygienic and medicinal measures were instituted early in the disease. Yet, notwithstanding all that has been written on the subject, the diagnosis of pulmonary tuberculosis often is not made until the best time for successful treatment has passed and the patient's chances thereby greatly lessened. More than once I have been shocked to discover that a patient whom I had been treating for some digestive disorder or impoverished condition of the system, showed on close examination to be affected with this dread disease.

To make an early diagnosis of pulmonary tuberculosis one need not be, like Kipling's shipwrecked mariner, "a man of infinite resource and sagacity" Anyone with ordinary attainments can, by applying well-known means, make the diagnosis in almost every case; hence we are the more to be censured if, through our carelessness and superficial methods of examination, we fail to do so.

While these means of diagnosis are well known to all of us, and while I can add nothing new to our knowledge of diagnostic means, it is beneficial at times to renew our knowl-

edge, to take an inventory of our stock of facts, "lest we forget," and thereby fail to do our duty both to our patient and to ourselves.

For convenience we will consider the subject under three divisions:

1st. Family and individual history.

2d. General somatic conditions.

3d. Physical signs and symptoms.

1st. Family and Individual History.

—From the very earliest times the heredity of the "great white plague" has been insisted upon. Before the discovery of the tubercle bacillus, and for some time afterward, it was thought that the disease itself was transmitted from parent to offspring. Soon, however, it began to be doubted if the bacillus was ever directly transmitted, and while there are authentic cases of such transmission, they are rare, and the theory of the transmission of the soil displaced the belief of direct bacillary inheritance. Of late the tendency has been to deny even the hereditary transmission of the soil and to account for cases of apparent heredity on the theory of contact with diseased person; but, in my humble opinion, the pendulum is swinging too far. and that in arriving at a conclusion as to the presence or prospective development of tuberculosis in a given case, we cannot safely ignore the element of heredity. As in the vegetable kingdom, the proper soil is necessary that seed may germinate and reproduce itself, so in tuberculosis, the soil must be suitable for the growth and multiplication of the tubercle bacillus. If the bacillus alone were adequate to produce tu-

berculosis, we would all be tuberculous, for no one escapes contact with the bacillus. It is important, then, to discover if in the individual case this soil is present through inheritance. This inherited soil, in whatever it may ultimately be determined to consist, comes not alone as the result of tuberculosis in one or both parents; it may come as the result of syphilis, carcinoma, diabetes, alcoholism or other diseases impairing the nutrition and disturbing the metabolic processes in one or both parents. The proper soil may also be acquired as a sequence of influenza, typhoid fever, alcoholism, poverty, insanitary surroundings; in short, any disease or circumstances which produce a depressed condition of the vital forces may pave the way for the development of tuberculosis. The fact to be constantly borne in mind is that no healthy person will or can have consumption, and that the proper soil is to be sought for in the family and personal history.

2d. General Somatic Condition.—In addition to the bodily conditions already referred to as constituting the proper soil for the development of pulmonary tuberculosis, it is of the greatest importance to ascertain the *corpulence* and *thoracic perimeter*. The word corpulence in connection with the diagnosis of pulmonary tuberculosis or a tendency thereto, originated with the French, who used it with the definite meaning of the relation between the weight of an individual and his height. Progressive loss of weight, not due to discoverable cause, is a very frequent precursory condition of phthisis. In many cases it precedes for weeks or months the

slight cough which is nearly always one of the first signs of beginning local trouble in the lungs. Loomis says that out of forty cases of which careful record was kept, 50 per cent. showed this antecedent loss of flesh.

In ascertaining the corpulence of an individual the actual weight alone is not to be so much considered, but the weight in relation to the height is to be ascertained. The military standard of foreign armies follows this rule: To ascertain the corpulence of an individual, divide his weight by his height in inches, after multiplying weight by 12. Thus, an average man 5 feet 8 inches high and weighing 150 pounds, would have a corpulence of 26.47. Loomis, from investigation made in this country, gives 25 as the normal corpulence of the male, and any man whose corpulence falls below 23 should be considered abnormally thin. Bouchard, after a long series of studies, places the corpulence of females at 23; in any case where it goes below 21 the woman should be considered abnormally thin.

In considering the value of corpulence in the diagnosis of pulmonary tuberculosis or a tendency thereto, it must be taken in connection with the thoracic perimeter of the individual. The thoracic perimeter is obtained by taking two measurements of the chest—one at deep inspiration, the other at forced expiration, and taking the average of the two. This indicates what the French call the “vigor of the constitution,” and it should never go below one-half the height of the individual. If it goes below this, especially if associated with defective corpulence, it indicates at least

a strong tendency to phthisis, if the disease has not already begun, and should always excite the greatest suspicion. Loomis examined a number of cases of early phthisis to ascertain the correctness of this rule, and says that he found in a few cases this ratio kept; that is, the thoracic perimeter equaled half the height; in most cases it fell below this, and in none rose above the standard. I have applied this test to a number of cases of beginning phthisis, and all went below the normal standard. In cases, then, coming under our observation of digestive disorder, anæmia, or other conditions which lead us to suspect phthisis, if both the corpulence and thoracic perimeter fall below the normal standard, without foci in the lungs that could be recognized by physical signs, we would be justified in treating the case as one of beginning pulmonary tuberculosis.

It is important to note the shape of the chest. A large number of persons who are not specially liable to tuberculosis have chests differing more or less widely from the normal standard, due to faulty position assumed in childhood or in later life owing to the character of occupation; but there is a more or less typical phthisical chest which would make one suspect strong predisposition to the disease. This chest conformation is characterized by narrowness in its antero-posterior diameter, has wide intercostal spaces, and the ribs sloping more than normal; prominent scapulea with depression of the supraspinous and infraspinous fossæ, and a slight subclavicular depression, giving a leanness and hollowness to the entire chest.

The vital respiratory capacity, as ascertained by the spirometer, should be three cubic inches for each inch of stature.

3d. Symptoms and Physical Signs.—

A great many cases of phthisis are preceded for a longer or shorter time by gastric symptoms; in fact, many cases in the pretubercular and incipient stages come to us complaining of nothing but loss of appetite and indigestion associated with debility, before any pathological changes can be made out in the lungs, or even before there is any cough. These patients are poor eaters, and, as Knopf tersely says, “Bad eaters are nearly always candidates for consumption.”

Associated with the gastric symptoms is often found a condition of chloro-anaemia, which, when not due to a patent cause, Loomis says, should excite our suspicion, especially in men.

The character of the pulse is often of importance in assisting to establish an early diagnosis, and this characteristic pulse, while often absent in the early stage, is also often found in the pretubercular stage. Besides its increased rapidity—it is usually from 90 to 120 per minute—it has these two characteristics: Change of position has little or no effect on its rhythm, and the arterial tension is greatly reduced. It is present only in the pretubercular stage and in the very incipency of the disease.

After local development in the lungs has proceeded sufficiently far to be readily detected by physical signs, this peculiar and characteristic pulse is no longer present. Ordinarily the pulse varies about fifteen beats per minute in changing from the recum-

bent to the upright position, but in the condition under consideration there is very little, if any change. The best time to examine the pulse is two or three hours after meals, and the patient should be free from excitement.

I recall the case of a young man who consulted me for rapid pulse, and who, also, had family history of consumption and presented many of the somatic conditions discussed in this paper, where a diagnosis of approaching phthisis was made months before any local deposits could be made out by the physical signs, but unfortunately in this case no treatment, either climatic or medical, had the slightest effect, and he died in about two years of phthisis.

If, with this peculiar pulse, whose rhythm is not changed by change of position, there should be found increased instead of decreased tension, there is some other disease, such as nephritis, associated with the tuberculosis.

The temperature should be closely observed for a considerable time, when an evening elevation will often be found. Knopf insists on the importance of taking the rectal temperature before and after short, rapid walks, when an elevation of a degree or more will be found. Small, frequent, and persistent elevations of temperature are always suspicious; so, also, is an evening subnormal temperature.

The presence of continuous and marked dilatation of the pupil, sometimes more marked in one eye, due to irritation of the sympathetic, is also a very frequent sign of early phthisis. So, also, is paraesthesia of the pharynx

and larynx, due to the same cause. Walfenstein says the peculiar characteristics of these symptoms of paraesthesia is their vagueness and indefiniteness. They consist of pain in the larynx, tonsil, tongue or sides of the pharynx, or a tickling, scratching, or burning sensation, indefinite as to beginning or location. If they are not due to a discoverable local cause, indications of phthisis should be looked for. A careful inspection of the larynx should be made, for the earliest discoverable pathological change may be located there.

Most of the conditions so far inadequately described are present and together constitute the so-called pre-tubercular stage of phthisis, sometimes long before any local signs can be detected or tubercle bacilli found in the sputum, and a faithful and minute attention to details in carrying out our examination will greatly assist us in arriving at an early diagnosis.

We will now take up briefly the early physical signs, not considering repeated hemorrhage or other signs that are so characteristic that one "who runs may read," because this paper is intended to consider only the early diagnosis.

When we recall how many autopsies reveal healed tubercular lesions of the lungs that were not recognized or even suspected during life, it must be apparent that some such cases of recovery pass through our hands without our even suspecting the true nature of the disease. This is sometimes no doubt due to our inability to detect by physical signs small, deep-seated lesions, but oftener our failure must be attributed to our lack of

care in making a thorough and exhaustive investigation.

I know from personal experience and observation of the work of others that physical examination of the lungs is often very carelessly made. Now, this is not right, and unless one is willing to take the necessary care and time to thoroughly do his work, it would be better for his patient if the physician would turn him over to some one who will take the necessary pains to do his duty. Besides, the consequences to his patient in the failure of the physician to do his work thoroughly, the effect upon himself can be only disastrous, as he not only loses the confidence of his patient, but he soon gets into the habit of slighting his work, with deadly effect on his growth and consequent usefulness. In case of doubt or obscurity more than one examination is necessary, and we should insist on sufficient time for continuous and repeated observation before making a positive diagnosis.

To properly examine the chest all clothing should be removed; at most only a very thin covering should be allowed, and in my judgment it is always best to insist to the point of acquiescence that false modesty be laid aside in the case of women, and the examination be made with the chest bare.

Percussion should be very carefully made during quiet breathing and at the end of expiration, when a slightly increased or heightened pitch may be detected. If the lesion be small and deeply seated the percussion may be slightly tympanitic, followed later as the area of disease increases by slight dullness. The earliest pathologic al-

teration in the respiratory sounds, due to tubercular deposits in the lungs, is diminished intensity or feebleness of the sound, or a slight harshness, prolonged expiratory sound, or tubular breathing with prolonged expiration, and sometimes at deep inspiration fine rales. With these the vocal fremitus is slightly increased. In estimating the importance of these signs it must be borne in mind that the normal respiratory sounds are slightly higher in pitch on the right than on the left side. By placing the patient firmly with his back against a wall or back of a high chair, the difference in resiliency of the lung tissue can often be made out.

It is highly important that the examination be made not alone in front, as is often done, but also behind between the scapula and spinal column, where a small lesion may often be located that would escape notice from in front. On this point Loomis says: "Many times on making autopsies I have found an active tuberculous consolidated area, say an inch in diameter, at one apex of otherwise healthy lungs, and with the bronchial tubes in and about the consolidated area also affected; but on account of the minuteness of the lesion I should defy anyone to make a diagnosis during life if the lungs were examined in the ordinary way. There is a way of examining the lungs that will reveal a lesion not much larger than the one alluded to, and possibly as small as an inch in diameter. If a patient's arm is brought forward on the opposite shoulder, the ear placed over the portion of the lung which is now uncovered by bringing the scapula forward, viz., just above and external to

where the bronchial tubes are given off, there will be heard tubular breathing and fine rales on coughing." Loomis claims that this is the very first physical evidence of tuberculosis, and can be detected weeks before the physical signs can be appreciated in front, where they are ordinarily looked for. The reason for this is that a majority of cases of pulmonary tuberculosis start at the apex and begin as a peribronchitis, with localized consolidations around the minute bronchi. The signs are not appreciated by listening beneath the clavicle in front, because the lesion are covered with two or three inches of normal lung tissue. Before dismissing this part of the subject it may be well to mention Murat's sign of increased voice vibration. Knopf (*Twentieth Century Practice*) describes it thus: "During loud and vigorous talking there is a vibration of the affected portion of the lung, recognized by the patient as a more or less disagreeable sensation. This symptom, which is entirely subjective, is explained by the physical law that a solid body is a better transmitter than air. At times, however, this condition may have escaped the attention of the patient, since its development is slow and not in the least painful. In order to discover it the physician should have the patient make prolonged expiration, accompanied by humming. If there is solidification,

the patient will then perceive the vibration in his voice. If the left side is affected it will seem to him that there is a direct communication of the voice between the larynx and that side, while nothing whatsoever is perceived in the right, healthy side of his lungs, and *vice versa*. Murat found this symptom in a number of cases of pulmonary tuberculosis before any subjective signs of infiltration could be elicited."

The detection of tubercle bacilli in the sputum would, of course, establish the diagnosis, but often in the very early stage there is little or no expectoration, and in the pretubercular stage none at all; so we can rarely make an early diagnosis by depending on the discovery of the bacillus. Nor does the absence of the bacillus, after repeated search, invalidate the diagnosis of phthisis.

In order to bring out the physical signs and obtain sputum for microscopic examination, a few grains of iodine of potash may be given for a few days. I have never seen it do harm.

With the use of tuberculin to clear up a doubtful case I have had no experience, but its use is as first pointed out by Virchow, considered dangerous by a great many, besides it gives the reaction in the presence of chlorosis and other abnormal conditions, and at the present time it is little used.

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EDITORIAL.

THE ALPHABETICAL LIST.

Elsewhere in this issue will be found an alphabetical list of members of the State Medical Association. Special care has been used in compiling this list. The membership in the various county societies as shown in the July number of this journal was used as a basis. Lists of members with their addresses were sent to the

secretary of each of the sixty-eight counties in affiliation and the corrections made as noted by him. From these rosters an alphabetical list has been made. If any errors exist the secretary of the county society should notify the secretary of the State Association at the earliest possible moment, as this list is to be sent to the American Medical Association, who

are to publish a medical directory of physicians in the United States who are members of one of the State or Territorial Medical Associations.

MEMBERSHIP IN THE COUNTY MEDICAL SOCIETY.

During the past month several letters relating to eligibility for membership in county societies have been received from members of the State Association. Dr. W. G. Hendrix of New London writes: "It was hard for me to affiliate with homeopathy, and when my society requests me to affiliate with osteopathy, or with Christian Science, I will withdraw." As the only door to the State Medical Association and the American Medical Association is the county society it was considered necessary, before admitting any county society, to have them adopt constitution and by-laws as proposed by the American Medical Association. The by-laws state definitely that the society shall be the judge of the qualification of its members, but that every reputable and legally qualified physician who does not support or practice or claim to practice sectarian medicine shall be entitled to membership. Thus it will be seen that physicians who are graduates of recognized homeopathic schools, who do not support or practice or claim to practice sectarian medicine are eligible to membership. As for Christian Scientists, osteopaths and magnetic healers, since they are practitioners of sectarian medicine (or should I say sectarian delusions) they are not eligible to membership in the county society.

HISTORY OF MEDICINE.

When the *Journal of the Missouri State Medical Association* was established the Publication Committee, realizing the importance of the history of medicine, decided to devote one page of each issue to that study. Thus far photographs and biographical sketches of Æsculapius, Hippocrates, Aulus Cornelius Celsus, Andreas Vesalius, Ambroise Pare, William Harvey, John Hunter, Edward Jenner, Rudolph Virchow, Bernhard von Langenbeck, Theodore Billroth and Benjamin Rush have appeared, and many more are to follow. It is with pleasure that we notice several medical schools are including medical history in the curriculum. Recently \$100,000 was left to the University of Leipzig for the endowment of a chair of History of Medicine. The purpose is to establish an historical museum of medicine and a special course of medico-historical research. The history of medicine is not only interesting *per se*, but it would save many doctors rediscovering methods of treatment that were known many years ago.

NEW MEMBERS RECEIVED.

Andre, Maurice, St. Genevieve.
Hertie, C. J., St. Genevieve.
Hinch, F. E., St. Genevieve.
Lanning, R. W., St. Genevieve.
Rutledge, G. M., St. Genevieve.
Meyer, A. G., St. Genevieve.
Moore, C., St. Mary.
Burgess, L. D., St. Mary.
Morganstein, H. J., Weingarten.
Counts, H. J., Ulam.
Forsythe, Robert C., Kirkwood.
Slaughter, S. C., Fredericktown.
Barrows, W. H., Mine La Motte.

Gale, F. W., Marquand.
 Hudson, T. M., Perryville.
 Blaylock, G. A., Silver Lake.
 Bowman, C. B., Longtown.
 Clark, J. P., Perryville.
 Estel, T. F., Atlenberg.
 Garner, K. C., Crosstown.
 Hatcher, W. H., Perryville.
 Manning, L. R., Brewer.
 Morton, D. F., Perryville.
 Russell, J. W., Longtown.
 Vessells, F. M., Perryville.
 Montgomery, John S., Milan.
 Cooper, C. C., Rolla.

Epperly, R. G., Prairie Hill.
 Wale, D. V., Carthage.
 Harrutun, M. B., Joplin.
 Freeland, P. L., Joplin.
 McBride, C. E., Webb City.
 Rogers, W. H., Ashburg.
 Coil, P. E., Mexico.
 Ianier, Herbert, Martinsburg.
 Baker, Charles, Santa Fe.
 Blankenship, W. R., Madison.
 Carger, F. H., Madison.
 Winters, M. S., Asherville.
 Wilson, Eli, Leora.
 Cline, B. J., Ardeola.

NEWS ITEMS.

The British tramp steamer Coulsden came into quarantine at New York last week with five of the Chinese crew sick with what Health Officer Doty declares is beriberi. Four deaths occurring on the way from Java were alleged to be due to cholera by the authorities at Suez. The ship was disinfected and the crew placed under observation at Hofman Island.

A report from London states that one of the crew of the steamship Weybridge, from the river Plate, which arrived in London on November 30, was taken with a suspicious illness, and bacteriological examination proves that he has the plague.

As a result of an investigation conducted by the grand jury, a physician of this city has been arrested on the charge of manslaughter in the fourth degree. The action followed the investigation by the grand jury into the death of a woman whom the accused

attended when she gave birth to a child. Witnesses testified that at a time when the patient was in a critical condition the physician absented himself for forty-eight hours, and at another time he left the bedside when she needed attention and went out to look after his horse, being gone some time. The death certificate assigned puerperal fever as the cause of death.

At a meeting of the Paris Academie de Medecine, held on December 7, Dr. Albert Robin is said to have reported remarkably good results attending the hypodermic injection of colloidal gold, silver or platinum in pneumonia. By electrolysis these metals may be reduced to a peculiar state of subdivision in which they develop a ferment-like activity. By the use of these metallic ferments Dr. Robin claims to have produced defervescence in six cases out of ten before the seventh day, and that thirteen patients out of fourteen recovered. It is not asserted that the

injections form a specific treatment for pneumonia, but simply that they hasten natural defervescence and so aid the other remedies usually employed.

The Nurses' Home, adjoining the Baptist Sanatorium in St. Louis, was burned to the ground early in the morning of December 3, the inmates narrowly escaping with their lives. There were forty nurses in the building, some of whom were saved by jumping from the upper windows. The Baptist Sanatorium was set on fire by sparks, but the fire was quickly put out.

What will probably be the largest homœopathic educational institution extant is to be formed in Chicago under the presidency of Dr. George F. Shears, by combining the Hahnemann Medical College and the Chicago Homœopathic College under the name of the Hahnemann Medical College of Chicago.

Professor Robert Koch started from Berlin for South Africa on December 17 to resume his interrupted study of rinderpest and other allied diseases.

A dairyman of this city and the driver for a condensed milk company were fined recently for selling impure milk. One was fined \$25 each on two charges of using formaldehyde as a preservative for cream, and \$25 each on two charges of diluting unskimmed milk with 20 per cent. of water. The other was fined \$25 on one charge of using formaldehyde as a preservative of cream.

The state board of health of Pennsylvania, through its executive officer, Dr. Benjamin Lee, has recently made public some interesting observations on watercress. The circumstances which brought a cress bed under suspicion are not published, but the results of the investigation are quite shocking. The water in proximity to the cress gave a bacterial count of 36,000 to the cubic centimeter. At a distance from the cress bed the count was not so high (21,000 per cc.). Sterilized water, in which a handful of cress had been washed, grew 5,000,000 bacteria to the cubic centimeter. In all the samples colon baccillus was present. Vegetables which are eaten raw have often been held accountable for typhoid infection, though satisfactory proof has rarely been obtained. Watercress has often been suspected, but never convicted, of causing typhoid fever. The observations of Dr. Lee show this toothsome little plant to be a remarkable accumulator of organic filth, and its efficiency as a carrier of infection is probably very high indeed, considering its comparatively unimportant rank as a food. The 5,000,000 bacteria introduced into each cubic centimeter of the water in which a bunch of cress was washed illustrates very strikingly the difficulty of cleansing raw vegetables. The conditions of market gardening are well known, but accurate information about the bacterial contamination of celery, cress, lettuce and cabbage is wilfully, though not unwisely, repudiated by sensitive people. Raw fruits and vegetables should not be excluded from the dietary, even

though their use involves some danger, but the kind and amount of such danger are very well worth the consideration of sanitarians. Large sums of money are annually expended upon the administration of pure food laws. Of this expenditure 80 per cent. or 90 per cent. is devoted to questions of fraudulent adulteration, having important enough commercial bearings, but often very trivial relations to public health. An experimental diet, having as its essential features raw cress, celery, lettuce and cabbage, might immortalize a "poison squad."

Channing W. Barrett (Chicago) read an interesting statistical paper on the "Mortality of Appendicitis," which was accompanied by a series of tables. Table I showed that Chicago still had a mortality in appendicitis about equal to .01 of the mortality from all causes. Table II showed that the percentage of female mortality from appendicitis varied very little from the percentage of female mortality from all causes, and that appendicitis was to be looked for as common in the female, notwithstanding the old belief that it was rare. Table III showed the greatest mortality at the best period in life, early adult life, the greatest number dying at any one year of age being twenty-two at the age of 19, the average age for all deaths being 26.34 years. Table IV showed that, leaving out the chronic cases, the average duration of the disease in the 372 cases in which the time was mentioned was 833-76 days. Murphy's mortality cases showed that the average time after operation until death was 2.8 days. This demonstrated that this vast num-

ber of fatal cases were operated upon at the end of the sixth day, while all authorities conceded that an operation on the first or second day was safe and desirable. Table V showed that the most frequent cause of death from appendicitis was suppuration of the appendix, caused by perforation, gangrene or passage of the infection through the wall, and peritonitis; and, further, that adhesions and obstruction were common. Many patients did not have the advantage of hospital treatment or an operation. An early diagnosis was most desirable, yet the bureau of vital statistics considered that a diagnosis was not made at all in 105 cases; a few of the remainder were made by the coroner. Some were made post mortem, and one could never know how many were made too late for any operation to save life. The long, but only partial list of vague diagnoses copied from the death certificates showed that in all probability some cases escaped detection. The author submitted the following conclusions: 1. An early diagnosis is of the first consideration. 2. All troublesome appendices should be removed without waiting for an acute attack. 3. All acute cases should be dealt with surgically in the interval between the onset of appendicitis and the dangerous rupture, without waiting for pus outside the appendix, for peritonitis, for adhesions or for a possible but remote interval. 4. Cases of perforation or gangrene, with localized abscesses, should be operated with drainage or removal of the appendix, according to the judgment of the operator. 5. Patients with perforation or gangrene without a wall of adhe-

sion are in still greater need of an outlet for the infection to lessen the tendency of infection to travel inward. 6. Prince, Murphy, Hawkes and others have shown a better percentage of recovery by the operative treatment of acute perforative peritonitis. 7. A case of acute appendicitis should be operated upon at any time if the patient's condition will permit of an operation, unless the case is rapidly, and beyond a question of doubt, convalescing. In this latter case we should wait until all acute symptoms have passed. 8. Healthy appendices should be left alone. 9. Proper treatment does not contraindicate the use of stomach lavage, or the withholding of food, and, when proper, these things should be employed, with or without operation. 10. Life is not the only consideration. The time of cure and after conditions are important. A patient going through an acute attack without operation is saved by the adhesions. Adhesions are lifesaving for the time, but they may be death-dealing afterward. The waiting treatment favors adhesions; early operation avoids them. An early operation sends the patient home in from ten days to three weeks. Twelve cases treated by the rest treatment, reported in the *Journal of the American Medical Association*, June 22, 1902, show an average of 60 7-12 days from the onset of the disease to the discharge of the patients from the hospital.—*American Medicine*.

The discovery by Menzer, a physician of Halle, of a curative serum for articular rheumatism, seems full of promise. In the two years in which

Menzer has been studying this question he has become more and more convinced that this disease is caused by a streptococcus, which enters the organism through the lungs. His treatment has been equally successful in cases of acute and chronic rheumatism.

At the sixth annual Congress of Physiology at Brussels, Professor Heger, president, inaugurated a movement to erect a monument to Marey, the inventor of the sphygmograph.

Sir Conan Doyle, who graduated in medicine and practiced for a time before devoting his talents exclusively to the writing of stories, states that there was a time when a young man, who was going to do anything in the world, was passed mechanically through the bar. He says: "I believe the time will come when the similar young man will be passed through medicine, because I know no other means by which he could get to the fundamental and absolute facts of life. The mere fact that in his training a man has to undergo so searching an ordeal in the most critical years of his life, and pays such enormous attention to detail, is, in itself, evidence that he receives a splendid training. I have always said that for a man who has mastered 'Gray's Anatomy,' life has no future terrors. If our young army officers had five years' study in the same sense that the young medical man has five years' study, we should become the terror of Europe."

The government expert commission, created to investigate the oyster as a

means of communicating the germs of typhoid fever, reports that the peculiar microbial diseases of the oyster, which are exceedingly rare, are not transmissible to man, and that under normal conditions the oyster is not unwholesome at any time of the year. Though the transmission of typhoid by oysters is possible, authenticated cases are rare and involve

series of exceptional circumstances, the chief sources of danger being the washing out beds and the shops of the retail dealers. That the oyster is so frequently connected with typhoid fever is due largely to the fact that the season for oysters begins during that season of the year when typhoid fever is at its maximum.

COUNTY SOCIETY NOTES.

STODDARD COUNTY MEDICAL SOCIETY.

Dr. D. R. Corbin, President.
 Dr. T. C. Allen, Vice-President.
 Dr. John Ashley, Secretary.
 Dr. S. M. Evans, Treasurer.

The Stoddard County Medical Society met at Bloomfield in regular quarterly session, Wednesday, September 7th, Dr. T. B. Turnbaugh presiding. The resolutions of the St. Louis Medical Society relative to state institutions for the care of tuberculous patients were heartily indorsed, and the secretary was instructed to so inform the St. Louis Medical Society, and to urge upon the governor, our state senator and members of the legislature the desire of this society to have such legislation enacted. Dr. Burris, of Puxico, presented a case of empyema which had been discharging pus for the past three years through a rubber drainage tube. Members of the society, discussing the case, advised a radical operation and rigid antisepsis. Dr. T. C. Allen, of Bernie, read a paper on "Typhoid or Continued Fever." As there have been many cases of a continued or

so-called "slow" fever in this section of the state, and as there has been a tendency toward diagnosing this fever as typhoid, this paper was well received and brought forth much animated discussion. The paper abridged is here presented:

"The subject assigned me is, from my point of view, an ambiguous one. I have not understood that typhoid fever is ever called continued fever. There is a form of continued fever seen here on which I have some views, and as it has at least some relation to malaria, I have elected to prepare a paper on malaria and incorporate therein some remarks on our so-called 'slow' fever.

"Malaria is a specific infectious disease, acute or chronic, due to the hematozoon of Laveran, and characterized by periodic fever, melanemia, anemia, enlarged spleen, etc. The immediate cause is the presence in the blood of the malarial parasite, the varieties quotidian, tertian, quartan and æstivo-autumnal, being the result of the presence of different varieties of the parasite. These varieties of parasite are not

varying stages of the same organism, but separate, distinct varieties of the hæmatozoon. The pernicious fever is usually due to the crescent forms of the semi-tertian variety. The parasite has two life cycles, asexual in man and sexual in the mosquito and other blood-sucking insects. It leaves the body of man, not by the ordinary channels of excretion, but is extracted by blood-sucking insects, in the vast majority of cases by the mosquito, genus *anopheles*, which, in turn, inoculates man. Among predisposing causes are marshy soils, low lying lands, tropical and subtropical climates and lack of resisting power; age, sex or race have little influence. As to the pathology, the chief characteristic is the enlarged spleen, due, in the acute cases, to excess of water in the blood; in the chronic cases to thickening of the trabeculæ and capsule; enlarged, softened tender liver (cirrhotic in chronic cases); kidneys cirrhotic and heart fatty and dilated in chronic cases; together with general pigmentation of all organs, and anemia.

The symptoms are typical; the onset characterized by a chill, generally following prodromal symptoms such as lassitude, anorexia, headache, sometimes vomiting; the chill followed by fever with throbbing temples, congested face and eyes, dry, hot hands, full bounding pulse, hurried respiration, intense thirst, and, later, delirium or convulsions, especially in children. A sweating stage follows, beginning about the head and neck, spreading rapidly over the body and becoming intense. It is accompanied by general relaxation and dropping of the fever

with copious passage of urine. In a few hours the patient feels very well save for a sense of exhaustion. In the remittent form a single chill is the rule. In children the quotidian form is the most common; the chill is not pronounced, the sweating is slight or absent, convulsions are frequent and vomiting nearly a constant symptom. The most common complications are enlargement of the spleen and other glands, nephritis, hemoglobinuria, hepatitis, œdema, general or localized, and various skin affections.

"The diagnosis should present little difficulty. Malaria complicates many diseases and simulates many, but the microscope should settle all doubt if the distinct periodicity does not. The prognosis is very favorable, the percentage of deaths is very small.

"The prophylaxis of malaria is essentially the prevention of infection by blood-sucking insects, and, of course, strict rules of sanitation. Quinine is the specific treatment, and will certainly destroy the parasite if persistently administered. It should be given for its complete effect, the dose being regulated by the tolerance of the patient. It should be given so as to insure its presence in the blood when the parasites are most numerous, that is just after the fever. That its administration during the fever is either dangerous or hurtful is erroneous. Other drugs, as methylene blue, arsenic, the salicylates and iodides are potent. I have had a case of chronic malaria, wholly intollerant to quinine, recover under the persistent administration of salicylic acid. Warburg's tincture has often proved efficacious where quinine failed. The

various chalybeates, stimulants and other reconstructants are valuable adjuvants to the specific treatment. As a palliative measure, where the fever must be controlled, the coal tar products are, in my judgment, the best febrifuges. The treatment of every case of malaria should be initiated with thorough purgation, and for such calomel, followed by a saline, has no equal. And now, with your indulgence, I come to a very brief consideration of this continued, or so-called, 'slow' fever. While my experience has been limited, my observation has been very careful in perhaps a hundred cases. That it is not, strictly speaking, a malarial fever is clear, there is no periodicity and but one chill. I wish to be clearly understood as thinking that this is a toxic fever, the result of toxins liberated by the malarial parasite, either as excretion or as a product of its death. That it is not typhoid I hope to be able to demonstrate by a very careful differentiation between the two. The prodromes of typhoid are classic; this fever has none, coming with either a very brief malaise or a pronounced chill—always but one. Typhoid has the typical epistaxis; I have never seen such a thing in this fever. The fever in typhoid is step-like and progressive to the fastigium, resolution being usually by lysis. In this fever the acme of temperature is reached just after chill, or on the third day at latest, to drop to about 101° , where it will remain with but slight and erratic variation until resolution sets in, when it will drop to 99° and remain a few days. In typhoid roseola typhosa is characteristic; in this fever the abdomen is

covered with little vesicles resembling milia. Typhoid shows much distension and tympany of the bowels; in this fever the bowels are flabby and not sensitive. Diarrhœa is the rule in typhoid; constipation in this fever. In typhoid there is delirium; in this fever I have never seen it. Carphology and hebetude are marked in typhoid; in this fever they are never seen, the mind is clear and tranquil and the patient has a sense of ease and well-being. In typhoid the patient is greatly wasted; in this fever, while he is anemic and sallow, he is never greatly emaciated. In typhoid sordes is typical; in this, while the tongue is foul and the breath offensive, there is no sordes. Since typhoid is a specific malady, resolution or death usually comes in twenty-one days; in this fever the course is indeterminate. In typhoid there is usually hemorrhage; in this, never. Typhoid cannot, from its very nature, recur; this fever is seen repeatedly in the same person. To those who have a glass, Widal's test and the typhoid bacillus will show; in this fever I feel sure neither will ever be found. This fever will not be controlled by quinine, and is best governed by an expectant symptomatic treatment. An antiseptic and supportive course seemed best to me."

The paper was thoroughly discussed by Drs. Turnbaugh, Wingo, Evans, Corbin, Vernon, Phillips and Ashley. It was generally agreed that the continued or, so-called, "slow" fever of this section was not typhoid, and the writer's position, as set forth elsewhere, was indorsed by all except Dr. Corbin, who believes that most of these cases are typhoid. Dr. Wingo,

our vice-president, who has been in government hospital service in Panama for four months, was present. Drs. Winters and Wilson were elected to membership. The following officers were chosen for 1905: President, D. R. Corbin, Bloomfield; vice-president, T. C. Allen; secretary, John Ashley; treasurer, S. M. Evans.

T. C. ALLEN, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. H. G. Wyer, President.
 Dr. J. T. Douglas, Vice-President.
 Dr. H. T. Randle, Secretary.
 Dr. C. L. Armstrong, Treasurer.

The St. Louis County Medical Society celebrated the end of its second year of existence by a dinner at the Mercantile Club, at St. Louis, on Wednesday afternoon, December 14th. There were twenty-three present. The society was fortunate in having as its guests Drs. W. B. Dorsett, the councillor for the Seventh District, Wm. Porter, A. S. Misenbach, and N. W. Sharpe, of St. Louis.

After the dinner the annual meeting was called to order by the president, R. D. Moore. The following officers were elected for 1905: President, H. G. Wyer; vice-president, J. T. Douglas; secretary, H. T. Randle; treasurer, C. L. Armstrong. The retiring president, R. D. Moore, was elected to the House of Delegates for a period of two years.

Dr. Howard Carter, of Webster Groves, read a very careful and thorough paper upon "The Symptoms and Medical Treatment of Graves' Disease." The "Surgical Aspect of

Treatment" was discussed by Drs. Misenbach and Sharpe. Dr. Dorsett gave the society some interesting reminiscences of early medical practitioners in the county, and spoke on "The Organization of the Medical Profession in Missouri." The society then adjourned to meet on January 11, 1905.

H. G. WYER, Reporter.

MONITEAU COUNTY MEDICAL SOCIETY.

Dr. J. B. Stewart, President.
 Dr. A. V. Thorpe, Vice-President.
 Dr. W. R. Patterson, Secretary.
 Dr. H. C. Kleuber, Treasurer.

The Moniteau County Medical Society held its regular quarterly meeting at California, December 8th. The following officers were elected for next year: President, J. B. Stewart; vice-president, A. V. Thorpe; secretary and reporter, W. R. Patterson; treasurer, H. C. Kleuber; censor, H. R. Popejoy; delegate, J. P. Burke; committee on public health and legislation, H. M. Latham, S. H. Redmon and L. M. Gray. The scientific program consisted of a paper by Dr. H. Freudenberger on "Acute Laryngitis." The paper was discussed freely by each member present. After the meeting adjourned the members with their wives attended the annual banquet.

W. R. PATTERSON, Reporter.

NEWTON COUNTY MEDICAL SOCIETY.

The Newton County Medical Society held its first formal meeting in the offices of Drs. Lamson and Lamson, Neosho, November 18th. There was present the most enthusiastic

gathering of medical men ever held in this county. All parts of the county were represented, and there were several from other parts of the state. After the usual preliminary work the society adopted the constitution and by-laws recommended by the American Medical Association, and decided upon the first Tuesday of each month as time of meeting. Dr. Herman Pearse, of Kansas City, read a paper on "Retention of Urine."

The Newton County Medical Society has come to stay and to grow, and the JOURNAL may expect good reports each month, including abstracts of our best papers.

HORACE BOWERS, Reporter.

HENRY COUNTY MEDICAL SOCIETY.

Dr. John H. Britts, President.
Dr. J. G. Beaty, Vice-President.
Dr. F. M. Douglass, Secretary.
Dr. S. A. Poague, Treasurer.

The Henry County Medical Society met in regular session Wednesday, December 14th, at 2 P. M., Dr. J. M. Miller in the chair. The minutes of the previous meeting were read and approved. A communication from the secretary of the State Medical Association relative to the incorporation of the American Medical Association, was read and approved, and the accompanying petition was signed by the secretary and president. A communication from the St. Louis Medical Society asking that an appeal be made to the Missouri State Legislature to pass a bill providing for the establishment of a State sanitarium for the care and treatment of cases of tuberculosis was read, but no action taken. The annual election of offi-

cers resulted as follows: President, John H. Britts; vice-president, J. G. Beaty, of Huntingdale; secretary and reporter, F. M. Douglass; treasurer, S. A. Poague; delegate, W. H. Gibbins; board of censors, R. D. Haire for the term of three years, and G. W. Moore for the term of one year.

F. M. DOUGLASS, Reporter.

BATES COUNTY MEDICAL SOCIETY.

Dr. A. E. Lyle, President.
Dr. E. G. Zey, Vice-President.
Dr. E. N. Chastain, Secretary-Treasurer.

The Bates County Medical Society held its third quarterly meeting in Butler, December 8th, Dr. Lyle presiding. Dr. J. R. Martin was elected to membership. Dr. Ross Grosshort read a paper, the subject of which was "Infection and Recovery." Dr. E. G. Zey reported some interesting and unusual cases of kidney trouble. Dr. M. P. Overholzer, councillor for the Thirteenth District, read a most interesting and instructive paper on "The Kidneys and the Urine." These papers, together with the cases presented, were enthusiastically discussed. The society adjourned to meet in Butler the last Thursday in February, when papers will be read by Drs. R. F. Hulett, V. J. Cunnifton, G. A. Delameter, A. E. Lyle and W. H. Knott.

E. H. CHASTAIN, Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. J. S. Howell, President.
Dr. Richard Schmidt, Vice-President.
Dr. F. Janet Reid, Secretary-Treasurer.
Dr. Thomas Chowning, Delegate.

The Marion County Medical Society met in regular session at the office

of Dr. E. L. Hornback, Dr. J. S. Howell in the chair. Dr. R. H. Goodier read a very entertaining paper on "The Benefits of a Medical Society." All present expressed themselves as well pleased with the sentiments expressed. Dr. J. J. Farrell exhibited a specimen of renal calculus passed without hemorrhage. Dr. J. S. Howell, the retiring president, read the annual address. This gave a resume of work done during the year and had for its keynote—effort—united effort. As a literary product it was excellent and was well received. Dr. W. H. Hays was elected to membership in the society. This being the close of the year a special effort was made to have a good, social time. A goodly number of professional brethren from the surrounding towns and county had been invited to attend the meeting and enjoy our hospitality for the evening. Immediately after adjournment twenty-one repaired to the Union Depot Hotel and enjoyed a repast suitable to the occasion. When the time of parting came, the opinion was unanimously expressed that the event had been a most happy one, both in its present enjoyment and in its possible good for the future of our profession in this locality.

H. L. BANKS, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.
 Dr. Harry Tatum, Vice-President.
 Dr. C. A. Jennings, Secretary-Treasurer.
 Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society met in regular session in Salisbury, Tuesday, the 29th of November, at 8:30 P. M., Dr. Epperly pre-

siding in the absence of the president. The minutes of the previous meeting were read and approved. Dr. Kirkpatrick's paper on "Rheumatism in Children," together with a case cited of a two and a half year-old, met with a most favorable and enthusiastic reception. The society adjourned to meet in Salisbury on the 29th of December, at 8:30 P. M.

C. A. JENNINGS, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. P. I. Leonard, President.
 Dr. A. L. Gray, 1st Vice-President.
 Dr. J. S. Owens, 2d Vice-President.
 Dr. C. W. Fassett, Secretary.
 Dr. A. B. McGlothlin, Treasurer.
 Dr. J. W. Heddens, Censor.

The Buchanan County Medical Society met December 2d with more than the usual attendance. Dr. C. A. Good and Dr. C. C. Gleaves were elected to membership. Two resolutions were passed. One was in shape of a communication from Dr. C. M. Nicholson, secretary of the State Medical Society, concerning medical legislation. The other endorsed the purposes and object of the Retail Merchants Association of St. Joseph. It was decided to hold the annual banquet on December 27th, at the Metropole Hotel. The annual report of the secretary was read. Sixteen meetings were held during the past year, with an average attendance of fourteen. Thirty-six papers were read, including two interesting symposiums—one on syphilis and the other on pneumonia. At present the membership of the society is seventy. Several were added during the year. New by-laws were adopted June

1, 1904. The yearly expenditures were \$247.90. The following officers were elected to serve during the coming year: President, P. I. Leonard; 1st vice-president, A. L. Gray; 2d vice-president, J. S. Owens; secretary, C. W. Fassett; treasurer, A. B. M. McGlothlan; censor, J. W. Heddens. Dr. Herbert Lee opened a discussion on "Epidemics." Dr. O. B. Campbell reported an unusual case of acute mastoiditis with lateral sinus thrombosis followed by death on the third day. L. A. TODD, Reporter.

JOHNSON COUNTY MEDICAL SOCIETY.

Dr. M. P. Shy, President.
 Dr. T. L. Bradley, Vice-President.
 Dr. E. J. Gilbert, Secretary.
 Dr. O. B. Hall, Treasurer.

The Johnson County Medical Society met in regular session in the court house, Warrensburg, December 13th, Dr. O. B. Hall, presiding. The minutes of the previous meeting were read and approved and ordered made a part of the records of the society. The annual election resulted as follows: President, M. P. Shy; vice-president, T. L. Bradley; secretary, E. H. Gilbert; treasurer, O. B. Hall; delegate, John T. Anderson; board of censors, Z. Case. The retiring president being unavoidably absent, his address was read by the secretary. It was full of good suggestions looking to the upbuilding of the society. Dr. R. P. Schooley read an excellent paper on "The Treatment of Typhoid Fever." General discussion followed, after which the society returned to the subject of the retiring president's paper. Lively discussion of ways and means of advancing the interests of

the society resulted in the following definite conclusions: First, there should be a more earnest effort on the part of the members to attend every meeting; second, there should be a more prompt response by those on the program to prepare and read papers; third, there should be made a greater effort toward bringing in new members, and the society should be made the vogue, fad and authority of the medical profession of the county. Membership in the society should be the necessary badge of the physician's respectability with the profession and the public. The society adjourned to meet January 10, 1905.

E. H. GILBERT, Reporter.

JASPER COUNTY MEDICAL SOCIETY.

Dr. R. L. Neff, President.
 Dr. C. C. Cummings, Vice-President.
 Dr. J. D. Pifer, Secretary.
 Dr. C. W. Miller, Treasurer.
 Dr. L. I. Matthews, Delegate.

The Jasper County Medical Society met in regular session at Joplin, December 5th, Dr. R. L. Neff, presiding. Dr. J. D. Pifer reported a case of interstitial keratitis of both eyes in a boy of seven years, the cause being hereditary syphilis. Dr. J. W. Clark, of Cartersville, read a paper on echinacea, a drug unknown to most of the profession, but used to some extent by eclectics. General discussion followed the reading of this paper. Dr. S. H. Miller introduced the subject of the prosecution of illegal practitioners in the county and after a vigorous protest against the apathy which has allowed these people to thrive, he moved that the society employ an attorney to prosecute all persons prac-

ting medicine without properly qualifying under the laws of the state of Missouri. The motion was lost. Dr. L. I. Matthews then moved to refer the matter of prosecuting illegal practitioners to the committee on health and legislation with instructions to interview the incoming prosecuting attorney and see what steps are necessary to prosecute these persons, and report at the next regular meeting. This motion carried. The society adjourned to meet in Joplin, December the 19th.

C. C. CUMMINGS, Reporter.

LACLEDE COUNTY MEDICAL SOCIETY.

Dr. J. M. Billings, President.

Dr. W. H. Wood, Vice-President.

Dr. J. A. McComb, Secretary-Treas.

The Laclede County Medical Society met at Conway, Missouri, on November 14th, at 8 P. M., Dr. Billings of Lebanon, presiding. Dr. Anderson, of Conway, read a paper advising not to tell patients what is prescribed, as it leads to using the same prescription for others of the family, or friends. Dr. Jacobs, of Conway, presented a patient with amnesic aphasia, who was examined by physicians present. There followed a general discussion of aphasia. The patient presented at least one peculiar feature. He knew no letter of the alphabet except "S," which he had not forgotten at any time. He was hemiplegic on right side with no involvement of tongue or lips; before his left eye, however, there was a space of three or four inches in which he did not see anything. He would locate the seat of the trouble by passing his finger, beginning at the ensiform car-

tilage up the middle of his body to the nose, pass across left eye to about three inches above left ear. He could hum any tune he formerly knew but could not remember a word of the song. There was an informal discussion of various subjects until midnight when the society adjourned.

J. A. McComb, Reporter.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. Wm. Carson, President.

Dr. J. D. Smith, Vice-President.

Dr. L. W. Dallas, Secretary-Treasurer.

Dr. Wm. Carson, Delegate.

The Shelby County Medical Society met in the office of Dr. Vaughn at Shelbina on September 18th at 8 P. M. As there was only a few present the evening was devoted to a general discussion of the business aspect of the profession of the county, together with several clinical reports. We are looking forward with much pleasure to our next meeting which takes place on the 22d of December at 8 P. M. in Shelbina. Our annual election of officers occurs then, to be followed by a banquet and we have invited several from outside the county to be with us. We intend to try to secure the presence and membership of every regular doctor in Shelby County on that occasion.

L. W. DALLAS, Reporter.

SCOTLAND COUNTY MEDICAL SOCIETY.

Dr. W. E. Alexander, President.

Dr. L. M. Coffey, Vice-President.

Dr. O. F. Pile, Secretary-Treasurer.

The Scotland County Medical Society met in regular monthly session in Memphis at the office of Dr. O. F.

Pile. Dr. W. E. Alexander in the chair. The minutes of the previous meeting were approved as read. Dr. J. D. Skidmore, of Memphis, was unanimously elected an honorary member. There being no regular program a general discussion was indulged in as how best to prosecute the osteopaths who use medicine in connection with their bone rubbing. We came to the conclusion that some legislation should be enacted against them. The following officers were elected for the ensuing year: President, Dr. W. E. Alexander; vice-president, Dr. L. H. Coffey; secretary-treasurer, Dr. O. F. Pile; board of censors, Drs. A. E. Platter, E. E. Parrish, L. M. Coffey.

E. E. PARRISH, Reporter.

HOWELL COUNTY MEDICAL SOCIETY.

Dr. J. W. Bingham, President.
Dr. A. H. Thompson, Vice-President.
Dr. H. C. Shuttee, Secretary.
Dr. J. McBride Johnson, Treasurer.

The Howell County Medical Society held its meeting December 1st. The dates of regular meetings were changed to the first Thursday in December, February, April, June, August and October. Dr. Jas. D. Block read a short, practical paper on "Placenta Previa," and reported a case. Dr. W. T. Edwards read a paper on "Scarlet Fever." Both these papers were well received and generally discussed. The following officers were elected for 1905: J. W. Bingham, president; A. H. Thompson, vice-president; H. C. Shuttee, secretary; J. McBride Johnson, treasurer; W. T. Edwards, member board of censors for three years.

H. C. SHUTTEE, Reporter.

CLAY COUNTY MEDICAL SOCIETY.

Dr. L. J. Jones, President.
Dr. John J. Rice, Vice-President.
Dr. F. H. Matthews, Secretary.
Dr. J. H. Rothwell, Treasurer.
Dr. H. Rowell, Delegate.

The Clay County Medical Society met in regular monthly session at Liberty, November 28, 1904, with Dr. L. J. Jones in the chair. A very interesting paper on the subject of "Gall Stones" was presented by Dr. J. T. Marsh, and called forth a free discussion from all present. The subject of "Bronchitis" was opened by Dr. E. H. Miller, and thoroughly discussed. The interest in the meetings of this society are continuously good.

F. H. MATTHEWS, Reporter.

RANDOLPH COUNTY MEDICAL SOCIETY.

Dr. D. A. Barnhart, President.
Dr. S. C. Adams, Secretary-Treasurer.

The Randolph County Medical Society met in Huntsville Tuesday, November 15th, Dr. D. A. Barnhart presiding. Papers were read by Drs. D. A. Barnhart and S. C. Adams on "Diphtheria" and "Antitoxin Treatment in Diphtheria," respectively. These papers were timely and very interesting, as diphtheria is quite prevalent in the county. Dr. McCormick reported a case, occurring before the prevalence of diphtheria, of mild tonsillitis, which showed no definite signs of being diphtheritic until there appeared paralysis of the soft palate followed by heart failure and death. There was no membrane after the tonsils, pillars of the fauces, uvula, soft palate or pharynx; the

onset seemed sudden, and the temperature lasted but a couple of days; the cervical lymph glands were not swollen, and there was no albuminuria present. This case report was especially valuable in that it makes manifest the extreme caution which must be used in cases of angina. The society adjourned to meet in Higbee, December 12th, at 2 P. M.

D. A. BARNHART, Reporter.

CASS COUNTY MEDICAL SOCIETY.

Dr. R. D. Ramey, President.

Dr. Geo. W. Farrow, Vice-President.

Dr. J. S. Triplett, Secretary-Treasurer.

The Cass County Medical Society held its regular meeting at Harrisonville, December 1st, Dr. T. W. Adair in the chair. A paper on "Missouri Doctors" was read by Dr. R. D. Ramey, of Garden City. Dr. G. W. Farrow, of East Lynn, read a paper on "Physiology of Static Electricity." "Diarrhea of Children" was the title of a paper by Dr. T. W. Adair. General discussion followed each of these papers. Remarks on section 3 of chapter 2 of the by-laws took up considerable time. A quiz in the anatomy of the heart was conducted by Dr. M. P. Overholzer. These quizzes grow more interesting with each meeting of the society, and the manner in which the questions were answered demonstrated that the members have not yet forgotten how to "bone up," as was the custom in student days. The society adopted resolutions having for their object the prosecution of illegal practitioners in the county. Steps will at once be taken to obtain evidence which may be used against these violators of the law. The fol-

lowing officers were elected for the year 1905: President, Dr. R. D. Ramey; vice-president, Dr. Geo. W. Farrow; secretary-treasurer, Dr. J. S. Triplett. The society adjourned to meet at Harrisonville on the first Thursday in March, 1905.

J. S. TRIPLETT, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. R. P. Davis, President.

Dr. C. H. Chastain, Vice-President.

Dr. G. C. Coffey, Secretary.

Dr. S. Redman, Treasurer.

The Platte County Medical Society met in Platte City, December 7th, at 1 P. M., Dr. Herndon presiding. The minutes of the previous meeting were read and approved. Dr. Herndon read a paper entitled "Treatment of the Morphine Habit," in which he characterized the habit as a curable disease. To be cured must be not alone the wish but the desire of the patient. The quantity of morphine taken must be gradually reduced for about two weeks. A thorough purge of calomel, followed by a saline the next morning, must precede the complete withdrawal of the morphine. Hyoscine hydrobromate, gr. 1-200, every half to two hours is then indicated for forty-eight hours, or until the period of nervous excitement has passed. The secretions must be watched. Tincture of nux vomica, tincture of cinchona, tincture of columba or strychnia are indicated. If there be excessive diarrhoea or signs of collapse, small doses of morphine must be resorted to. The nervous symptoms may call for passiflora or avena sativa. The patient should be kept under observation for at least

six months. Dr. S. Redman read a paper on "Curettement of the Uterus" He stated that this operation is often fruitful of much harm. Tubal trouble, chronic or acute, is generally made worse by curettement, excepting when it is preliminary to some more extensive operation. In endometritis curettement is the treatment. Subinvolution calls for loose gauze drain only. The patient should never be curetted on the bed, always on the table and under general anesthesia. Strict asepsis should always be observed. After the report of the secretary on the past year's work, officers for the coming year were elected as follows: President, Dr. R. P. Davis, of Woodruff; vice-president, Dr. C. H. Chastain, of Weston; secretary, Dr. Grundy C. Coffey, of Platte City; treasurer, Dr. S. Redman, of Platte City; board of censors, Dr. A. S. Herndon, of Camden Point. After indorsing the action of the St. Louis Medical Society in regard to the proposed state hospital for tuberculosis, the society adjourned.

G. C. COFFEY, Reporter.

MILLER COUNTY MEDICAL SOCIETY.

Dr. S. P. Hickman, President.
 Dr. D. H. Kouns, Vice-President.
 Dr. G. D. Walker, Secretary.
 Dr. H. H. Brockman, Treasurer.

The Miller County Medical Society met in regular session in Eldon, Thursday, December 1st, Frank De Vilbliss of Spring Garden, in the chair. Dr. John D. Seba, of Bland, read a paper on "Cerebral Surgery," with report of cases. The paper was very practical, being based wholly upon facts gleaned in his own prac-

tice. Dr. B. F. Bowlin, of Bagnell, read a most interesting paper on "Measles." President De Vilbliss' annual address was full to the brim of the things which the country practitioner encounters. His suggestions and recommendations were well received by the society. The election of officers resulted as follows: Dr. S. P. Hickman, president; Dr. D. H. Kouns, vice-president; Dr. G. D. Walker, secretary; Dr. H. H. Brockman, treasurer. The society adjourned to meet the first Thursday in March, 1905, in Olean, Missouri.

Dr. Frank De Vilbliss read the following paper:

Gentlemen of the Miller County Medical Society:

As far back as history records erroneous beliefs and false medical doctrines have gone hand in hand with true medicine. Ideas as absurd as the imagination can conceive of, and practices entirely outside the pale of reason, continue even till the present day. Hardly a generation has passed since it was believed by some, and no doubt the belief had its origin in some quack doctor, that if a black cat was killed and put under the bed of a patient suffering with pneumonia, it would cause his recovery; and if it did not cure him it was because the cat was obtained too late, or else it wasn't black enough. Other things equally as absurd, viz. The so-called "Christian Science" doctrine, Dowieism, Absent Treatment as advanced by Weltmer, etc., have each their followers, but are devoid of merit except such as may be obtained from suggestive therapeutics. In this enlightened age of medicine, when we can look back over a few short dec-

ades, and view with wonder, and even amazement, the progress that has been made both in preventive and curative medicine, we are astonished that these absurd doctrines find a lodgment in the minds of so large a class of intelligent people.

Especially does this seem strange to us as doctors, because as a profession we are unwilling to accept any reputed progress as true until it has been proven by experience to be a real progress. And, furthermore, that all discoveries in medicine being given to the world for the benefit of the race, a reading people ought to be able to separate the wheat from the chaff.

In part the fault lies, in my judgment, at the door of the rank and file of the recognized medical profession. We use daily meaningless expressions and otherwise indoctrinate false ideas into the minds of the laity, and some of us at least assent to, if not actually favor, the idea that there is something about our profession that is mysterious and to the laity unfathomable. Some of these erroneous beliefs and meaningless expressions that are promulgated, or rather perpetuated by some members of the profession I shall proceed to mention and comment upon, realizing that I myself have not been guiltless of some of the sins that I now condemn or censure in others; but I shall hope for pardon on condition that I promise to do better.

HIVES.

One of my first patients was an infant, a few days old, whom I was informed had the "hives" and that they "gone in on it." This was the first

time I had ever heard of the malady, and I hunted diligently through my small library to ascertain the nature of the disease with the hope that I might find something recommended that I could administer to "break them out." But the books were silent except urticaria, by the English was sometimes called hives, and I knew the baby did not have urticaria. In less than a year thereafter I was called to see a child of some three years, and when I arrived the patient was dead. Here and there over the body were small hemorrhagic spots caused, as I thought, by the circulation lasting somewhat longer than the respirations, as these spots had not appeared till after life had become extinct. An old lady who was present asked me if I knew what was the matter with the child and I was forced to admit I did not. She told me she did, that it had the "bold hives" and that they didn't break out till after the child was dead, and she proceeded to show me by these spots that she was right, and she further informed me that "they always killed when they didn't have the right kind of medicine to break'em out," and that doctor so and so who had then left the neighborhood and gone to farming knew just what to give. Bold hives seems to have passed into oblivion, but hives in young infants still exists in the minds of the laity and no doubt with some doctors.

WORMS.

Intestinal worms, in the minds of a large class of the laity, is responsible for many of the afflictions incident to childhood, and I believe this belief is shared in to too great a degree by

some of our profession. That children may and frequently do have intestinal worms no intelligent physician will deny; but that they are the cause of convulsions, fever, night terrors and a hundred other dreadful symptoms that is sometimes attributed to them is untrue; and then sometimes I hear of doctors giving vermifuge that cuts them up so they can't be recognized. I hope none of the doctors of this society gives this kind of worm medicine. I think it would be more humane to destroy the poor worms in some less cruel manner; besides, it occurs to me that such a remedy would be rather hard on the mucous coat of the stomach and intestines.

TEETHING.

The cutting of the teeth is also erroneously held responsible for many nervous phenomena and digestive disturbances that sometimes affect children at that age. A child when teething is passing through a rapid developmental period of its existence, and deleterious influences as well as all influences make pronounced impressions upon its nervous system; and the reason that an infant in its second summer is predisposed to diarrheas is not because it is teething, but because at this period of its existence there are glands developing in the gastric and intestinal walls whose function is to furnish the digestive principles which are to digest the food which the child shall masticate with these teeth when they are matured. In the manufacture of these glands there is required a large afflux of blood so that the mucous membrane of the stomach and intestines

is in a constant hyperæmic condition. To this add the depressing effect of intense heat and conditions are very favorable for digestive troubles and only lacks an indiscretion in diet, either in quantity or quality, as an exciting cause to precipitate an attack of indigestion.

SUPPRESSED MENSTRUATION.

Frequently as a result of some exhaustive diseases like tuberculosis having laid its hold upon some young woman, or older one for that matter, the menstrual flow becomes scanty or ceases. There is a belief more or less prevalent among the laity that this is the cause instead of the result of the sickness; and because of this erroneous belief they want the efforts of the doctor directed towards re-establishing the flow. To do this is not only futile but may and does cost valuable time to the patient. In their anxiety the friends of the patient will sometimes talk with a doctor not interested in the case for the purpose of getting his opinion on this particular point. I am sorry, gentlemen, that in this enlightened age of medicine some of our profession have either maliciously or ignorantly assented to this false doctrine; and it not only more firmly fastens a false belief in the minds of the people generally, but it falls on willing and receptive ears and seriously handicaps and hampers the honest doctor who is using all the tact and skill at his command to uphold, sustain and encourage a poor, suffering woman in her slow but sure transit from health to the grave, besides doing the patient incalculable harm.

ULCERS ON THE WOMB.

This is an affection which is reputed to be found by some physicians, and women are treated for it regularly for months when no such condition ever exists except in specific or malignant disease.

This is a form of charlatanism entirely too frequent. To resort to such methods to hold a patient is to betray the trust reposed by the patient and may reflect upon the doctor who previously treated the case, because the woman treated can only infer that her previous physician had not recognized the nature of her malady.

BILIOUSNESS.

The word "bilious" has long been used and is still used by many in the profession when, in fact, the actual condition existing will not admit of the use of the term. There is not too much bile but the furred tongue, the sluggishness, lassitude and general feeling of malaise which people complain of whom we call "bilious" have these symptoms as a rule from imperfect elimination of the waste material of the economy. A physic will, usually at least, give temporary relief, not by removing the bile but by removing the excess of effete material with which the system is burdened.

LIVER DISEASE.

Probably no organ of the body is accused of being the seat of disease as much as the liver. Especially is this true with the patent medicine men who advertise their "liver pills," "liver regulators" and "liver medicines" on every plank fence and old barn in the country, and yet the liver is as seldom primarily diseased as any

other organ of the body; and doctors are not entirely guiltless. To me it sounds very much like quackery for a patient to tell me that Dr. A. had examined him and told him "it was his liver." I have heard doctors use the same expression, and it is wrong because it conveys no idea of the pathological condition. I am aware that we have people with diseased livers; I do not refer to that but rather to that class, frequently neurasthenics, who are told by their doctor that their "liver is out of order" and that "they need some liver medicine."

COLD.

The word "cold" is so universally used to designate acute catarrh of the upper air passages that an effort on the part of the profession to discontinue the term would probably prove futile. However, it is unscientific, and for that reason should not be used.

TOUCH OF DISEASE.

Did you ever hear of anyone having a "touch of pneumonia" or a "touch of typhoid fever?" This is only a clever way of expressing ignorance as to just what the malady is. Either the patient has pneumonia or typhoid as the case may be, or he doesn't have it, and it would be more manly to state frankly that the symptoms and conditions are such that a positive diagnosis cannot yet be made than to evade in this manner. There are few who do not know that diseases differ widely as to severity in different cases; that modifying influences, personal peculiarities and the similarity of many affections in their onset frequently mask the exact pathological condition. My experi-

ences are that an open and frank statement to the family or friends, as above indicated, is calculated rather to inspire confidence than to destroy it; besides, such meaningless expressions lower the profession in the estimation of all thinking people. Anybody that stops to think knows that a touch of pneumonia or typhoid means that we don't know whether the patient has it or not. There are doubtless many other things which do not at this time come to my mind; but let these suffice. What I contend for is to call a disease or a condition by its right name.

We are supposed to represent a learned profession, and it is incumbent upon every member thereof to elevate rather than to lower the dignity of it. Each should use his influence along the line of rational, sensible medicine, and be able to state, as far as may be, that if a thing is so why it is so, to the end that so large a class will not look upon our cult as bordering on the mysterious. As members of an honorable profession, we should seek to honor it by familiarizing ourselves with the teachings of the day. There is no position where the responsibilities are greater, no business where the opportunities for serving our fellow man are bet-

ter, no vocation more noble, no calling which, if pursued in an ideal, unselfish manner, that is more Christlike in its tendency than that of the intelligent, well qualified, honorable and conscientious physician. On the other hand when followed without in some degree these higher motives to inspire fair dealing with his professional brethren, and competent, honest service to his patronage, it is as low and damnable as the other is high and noble. There have always been enough within the ranks of the profession who care not for the means used to secure the end, and the end is the dollar, and the dollar to them is greater than life or health in the other fellow, and these fellows make use of the superstition and ignorance (two "boon companions") abroad to further their business.

If we, as honest, intelligent and competent physicians, ever hope to drive these charlatans and quacks out of business, we must educate the laity along the lines of rational, sensible medicine, and the first move in that direction is to get right ourselves. The stream cannot be purer than the fountain, and if we hold to and perpetuate false ideas, we need not expect the laity to go further than we lead. G. D. WALKER, Reporter.

ABSTRACTS.

Treatment of the Stump in Appendectomy.—In the November number of the *Annals of Surgery*, Dr. M. G. Seelig strongly advocates the simple ligature and cautery method of dealing with the appendix. He bases his contentions on rather extensive experi-

mental histologic and bacteriologic some data, and on the clinical course of twelve hundred cases of appendicitis operated upon during his internship at the Mount Sinai Hospital of New York City.

He takes up the ordinary methods

of inverting the stump and shows that they are all open to two serious objections, namely, the burying of an infected stump, and the possibility of secondary hemorrhage. Very frequently an artery runs under the peritoneal coat of the appendix. This vessel may cause fatal bleeding when the stump is inverted into the cæcum, without previously ligating its base.

Dr. Seelig shows that a simple ligature tied around an appendix effectively closes off the lumen and forms a well-protected stump, that does not call for the necessity of any burying sutures. Moreover, he shows that a stump that has been cauterized with carbolic acid or the actual cautery is absolutely sterile and may be left in the free peritoneal cavity with impunity.

The author's final argument is, that since the simple ligation and cautery method is demonstrably safe, since it is free from dangers inherent in the other methods, and since it is much less time consuming, it is entitled to be called a "typical method of appendectomy."

The Chinese Management of Transverse Presentation.—Dr. Anna Gloss, Pekin, China, states as follows: One day two men came to my house seeking a foreign doctor to go to the aid of a woman who was in labor. All they could tell me was the "arm had come down, and that the people were too poor to pay even the hire for cart for the doctor. Truly, they were too poor. The house consisted of a single room, seven by eight feet. It was built of waste boards, paper windows and broken brick. A cotton curtain

did duty as a door even in the middle of winter. The kang, or brick bed, filled the entire room except a space two feet wide opposite the door. In this space, which had only a dirt floor, stood a table and a stove made from a discarded kerosene oil tin. Our wraps were left out of doors, and with difficulty we found a place inside to open up the obstetrical bag.

We found the patient on the kang, dressed in her best clothes, half reclining in her mother's arms. A dying Chinaman is always dressed ready for the grave, so that the family need handle the dead body as little as possible.

The woman, we learned, had been in labor three or more days. The midwife had begun with the ordinary methods. Expensive incense had been burned under the mother's nose. a lighted candle had been placed in front of the vulva, the father had been sent upon the roof and his name repeatedly called in loud tones. All this to stimulate the child to come forth. Then the midwife sat behind the patient on the kang, with her arms tightly clasped around her waist, making strong pressure from above, to compel the same desired end.

All should have gone well, but, unfortunately, the arm instead of the head came down. Then the midwife realized that she had a difficult case on hand. She procured some catsup from a neighbor, anointed the arm with it and repeated over it many times:

"Tzu, tzu, tsun, tsun, niang, niang,
Lung sheng, niang, niang,
Kuai, kuai, tang, tang, tang, ti."

Which, being interpreted, means, "Go back into the womb and come out properly." She then went home to dinner.

Returning some hours later and finding the arm still down, she went through the same performance, only using vinegar this time. Coming back again and finding no results from either the catsup or the vinegar, she tried the magic of salt and prayers. She did not use the decinormal salt solution, but took the dirty brown salt used in their food. This also proving of no avail, she pulled upon the arm until it parted at the elbow, then upon the forearm until it also came away at the shoulder.

When there was nothing more within reach to pull upon, and pushing from above did no good, the midwife was in a dilemma. The pains had ceased and the patient was exhausted with loss of blood and want of sleep and food. At this point a neighbor's consultation was held in the court. Someone had heard of the foreign doctors, and two men kindly offered to go in search of one.

It was some hours later when we arrived on the scene, and in the meantime the family had given up all hope and dressed the sufferer ready for her coffin. Her pulse was so bad that with all possible haste we got her down on the kang by removing the old mother and the pile of pillows that supported her, took off the fine cloths, under which we found the pieces of dismembered arm, and blood and filth-soaked coarse paper, the only absorbent used in such cases. We brought her to the edge of the kang on a clean sheet, which we carried with us, and made a hasty washing-

up. It is safe to say that this was the first washing of anything or anybody that had been done for three days. The child was soon delivered by turning. From its position and that of the placenta it must have been dead some time.

The vulva was so edematous and blue that it seemed the tissues must tear at touch, but they were not badly torn. The uterus was slow about contracting, but finally did so, and we left our patient to the tender mercies of her ignorant but anxious friends, warning them against making her sit up as soon as we were gone.

She quite naturally had fever, but we were not called to the house again, though the husband came to us for medicine for her for ten days. Whether she finally lived or died we will never know, unless at some future time she needs to consult us. Then she will come and tell us that she is the woman whose life we saved.
—*Chicago Clinic.*

The Purification of Typhoid-Infected Water.—Director Edward Martin's enthusiastic and unconditional advocacy of copper as a germicide in purifying drinking water contaminated with typhoid bacilli has attracted widespread attention to the work of Drs. Moore and Kellerman, of the United States department of agriculture, much more, probably, than these investigators had looked for. As is well known, the original object of their researches was to discover a chemical that would destroy certain forms of algæ that render drinking water kept in reservoirs offensive to taste and smell. Copper was found

to have this power in solutions so dilute that, at least so Drs. Moore and Kellerman maintain, it is harmless to the consumer of the water. The strongest solution found necessary is that of one part copper to a million parts water. In a recent address before the Philosophical Society, Dr. Moore stated that copper fulfills the three requisites to be considered by municipalities in undertaking to purify their water-supply from algæ, and even from bacterial growth, namely, efficiency, harmlessness and cheapness, a reservoir holding 80,000,000 gallons having been successfully treated at a cost not greater than \$50. There is sufficient evidence that regarding algal growth the method is efficient. It has been successfully applied in several New England towns, in Elmira and Cambridge, N. Y., and in Butte, Montana. Regarding its value in destroying typhoid fever germs, however, opinions are conflicting. Dr. Martin claims, as the result of some experiments made at the laboratory of the bureau of health of Philadelphia, that typhoid bacilli are destroyed in drinking water kept in copper vessels for four hours, the destruction being accomplished by the colloidal solution of copper formed by the action of the water on the walls of the vessel. Quite different results, however, have been obtained by Professor John H. Long, of the Northwestern University of Illinois, who has investigated the subject at the request of the Illinois state board of health. According to him, while the death rate of typhoid bacilli is high in sterilized water placed in contact with copper, the germs can persist in

suspicious water for two or three days, and even longer. Professor Long, moreover, claims that the disappearance of the typhoid bacilli from water in a copper vessel cannot be attributed entirely to the germicidal action of copper. Typhoid bacilli disappear from ordinary water in from one to ten days, and from Chicago tap water in about five days. Hence, the disappearance of the bacilli four hours after their addition to the water may be due not only to the action of the copper, but also to the natural destruction of these bacilli in water. Dr. Pennington, of the Philadelphia health bureau, is experimenting at present with colloidal solutions of copper obtained by passing water over electrically charged copper plates. But even if copper in the extremely dilute solutions advocated is capable of destroying typhoid bacilli, it still remains to be settled whether it is entirely harmless to human beings. A priori, any chemical capable of destroying resistant bacteria, must be looked upon as harmful to animal cells, and, as the the question stands at present, it would be unwise for a city to treat its whole water supply with copper. Dr. Abbott, in the discussion upon Dr. Moore's paper at the American Philosophical Society meeting, suggested that one of the six reservoirs of Philadelphia be set apart for experiment with copper, and this suggestion appears quite reasonable. The opportunities for investigating the subject are probably better in Philadelphia than anywhere else, owing to the number of separate reservoirs and to the prevalence of typhoid fever.—*American Medicine*.

On the Causation and Treatment of Incontinence of Urine in Children.—

The etiology of enuresis has always been a much-disputed matter. Some regard it as a purely functional disturbance; some think that there is always a local disease behind the neurosis, and many take a somewhat intermediate view. The clinical varieties are generally admitted, theoretically, to be numerous. In practice, however, there is a strong tendency for the medical man to get into the way of classing the cases unscientifically into two groups—those which recover and those that get worse in spite of treatment.

The most important recent contribution to the subject is that of Dr. J. G. Rey on the results of his experience in the investigation and treatment of fifty-two cases of enuresis in children which he has had under observation during the last five years. Rey is convinced, when there is no central nervous lesion or mental defect present, and non-infantilism or athyria, the wetting is always primarily due to the presence of local disease or irritation of the bladder or of neighboring parts. The local disease or irritation may have passed off by the time the case is seen, but originally it was there. In cases where the local cause recovers in this way, but the enuresis continues, it is easy to see that faradism, epidural injections, etc., may bring about a sudden cure.

One of the commonest and most important causes is latent cystitis due to bacillus coli. Rey has found the internal administration of salol, along with a strict milk diet and regular

meals, to be better than washing out the bladder in these cases.

Another very important cause of enuresis is simple mucous cystitis. The child's distress can often be relieved, even within twenty-four hours, by regulation of the diet and administration of salol. When there is an irritation or constriction of the meatus, this greatly favors the continuance of the incontinence. A less frequent cause of enuresis is phosphaturia. This is best treated by a flesh diet and a diminution of vegetable food. It is sometimes caused by an accumulation of smegma about the corona glandis.

Epidural injections have been suggested by Dr. F. Cathelin and Dr. G. Kapsammer for enuresis. These injections have been followed by no untoward effects, and have done a great deal of good.

Another new method of treatment for obstinate cases has been devised by Professor Jaboulay. Large quantities of sterile salt solution are injected into the retrorectal connective tissue. Revel has had three cases that were treated by this method with entire success. — *Scottish Med. and Surg. Jour.*

Madness in Armies in the Field.— Dr. Paul Jacoby, physician-in-chief to the Provincial Asylum of Orel, Russia, strongly urges, says the *British Medical Journal*, the necessity of a special psychiatric service for soldiers on campaign. The privations and fatigues of active service, the nervous tension caused by ever-present danger, the frequent mental shocks, alcoholism and wounds, all

predispose to madness. In the Franco-Prussian war, Dr. Jacoby was struck by the number of cases of mental disorder, mostly degenerative forms and psychical traumatisms, which came under his observation. Inquiry among Russian medical officers who served in the war with Turkey in 1877-78, showed that a large number of acute psychoses occurred among the troops. Such diseases were also very common among the Russian soldiers in the war with China in 1900, and many men who had gone mad were shot that they might not fall into the hands of Chinese torturers. During the present war many cases of delirium have been observed, especially in the garrison of Port Arthur. On board the Manchuria, when taken by the Japanese, there were found fourteen insane soldiers who were being sent back to Russia. "Let us try," says Dr. Jacoby, "to imagine the condition of these unhappy men after a six weeks' voyage spent entirely in the hold of the ship." In European wars the need for special provision for the care of lunatics during hostilities does not make itself acutely felt, for there are always asylums of some kind within reach. But in warfare in uncivilized countries, where distances are extreme and there are no railways to shorten them, where the food supply is scanty and precarious, and where the climate adds to the general misery of things, the lot of such unfortunates is truly wretched. There are, according to Dr. Jacoby, no lunatic asylums of any kind in Manchuria; the "departments for the insane" of the provincial hospitals of Siberia are "simply appalling" and they are full to over-

flowing. To transport sufferers from nervous or mental disturbance a distance of 10,000 kilometres in time of war by a railroad encumbered with military trains would deprive them of all hope of cure. The novelty of the conditions under which modern warfare is conducted adds greatly to the strain on the nervous system of the combatants. Dr. Jacoby compares the sinking of ironclads by the explosion of torpedoes and mines to earthquakes and volcanic eruptions which, it is well known, are accountable for much mental disorder. He thinks it is likely that these new forms of shock will produce new forms of neuroses and mental disorder. Medical officers have already more than enough to do in looking after the sick and wounded, and there are grave objections to placing insane patients among the ordinary occupants of the military hospitals. Dr. Jacoby thinks that if arrangements could be made for the immediate treatment of insane soldiers in separate tents, under special care, they would have a good chance of recovery. He is of opinion that the crimes of violence, rape, etc., which are so common among soldiers in the unbridled license of war, are largely due to mental disorder, and that such cases would be more effectually and more justly dealt with by medical ministration to the mind diseased than by court-martial. — *Journal of the Association of Military Surgeons.*

Fats, Absorption of, in Infants.—

An experimental investigation of the varying capacities of the absorption of fats in the infantile intestine was made by P. Nobecourt (*Revue Men-*

suëlle des Maladies de l'Enfance, August, 1904). The amount of fat absorbed is found by taking the difference between the amount taken in with the food and the quantity found in the fæces. In this way may be obtained the coefficient of absorption. It is necessary, however, to take into account the quantity of fat ingested, for, in fact, if the infant take very little fat, nearly all of it may be absorbed, while, on the other hand, if a great deal is ingested a large amount will be found in the fæces even though the digestive and absorptive powers may be quite marked. In general healthy, breast-fed infants have a very marked absorptive capacity for fats, even though they be prematurely born. A more or less constant impairment of this capacity is found in weak, dyspeptic infants, in infants sick with intestinal or pulmonary infections in cases of myxœdema. In convalescents from measles the absorption of fats is normal. In determining the kind of food the infant should have it is necessary to take account of its fatty absorption coefficient. In infants who ingest a quantity of fat too great in proportion to the amount absorbed, it is necessary to diminish, if not the quantity of milk, at least the quantity of fat. In certain cases skimmed milk or buttermilk produces excellent results.—*Medical News*.

The Kentucky State Board of Health, in its war on unsanitary conditions in railway coaches, will receive a god-speed from every railroad passenger in whatever part of the country, who stops to think on the dangers of dirt and disease to which he is subjected.

The plush seat is the center evil which the Kentucky board is attacking. It has been placed under state ban, and the board proposes to indict every railroad official it can reach in the state who can by any possibility be held responsible for operating cars with such seat coverings. Either leather or cane is permitted as a substitute. The requirement extends both to sleepers and day coaches. There is no question but that the plush seat is one of the finest receptacles for filth that could be devised. The dust that blows in through the open car windows is caught and held fast, and if any disease germs are in the air they are pretty sure to find a camping out place on the plush until a human victim comes along. Leather seats are not open to any such sanitary objection, but they are hot and often uncomfortable, and not at all to be compared for downright ease with the cane seats, which are usually set aside for day coaches, tourist sleepers, and the least pretentious cars. Another good seat covering is of linen, which can be taken off and cleaned at frequent intervals. It would be well for every state to make provision by legislation for sanitary seats, sanitary bed clothing in berths, and the best possible ventilation. The railway companies have had much more interest in mere appearances than in healthfulness in the past. Some of them are learning that looks are comparatively a minor detail, but others need to be taught.—*American Medicine*.

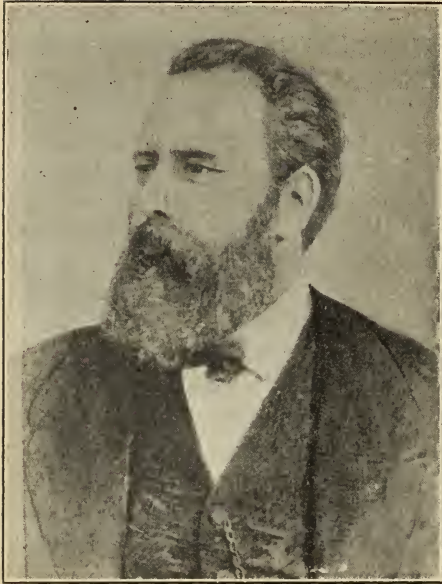
G. Muscatello reports the case of a woman of thirty-two who was taken ill suddenly with symptoms of severe

infection. She had high fever, vomiting, headache, pain in axillary region, enlarged palpable spleen, distended abdomen, no diarrhœa. She developed broncho-pneumonia of upper and middle lobes of right lung, and became jaundiced. Widal and diazo reactions were positive; typhoid bacilli were cultivated from spleen by puncture. The sputum contained the diplococcus of Frankel. A diagnosis of typhoid fever and pneumonia was made. The latter was disappearing, and the patient improving, when, on the fourteenth day, she complained of very severe pain over the spleen, which was more enlarged than ever. The area of dullness extended to the median line anteriorly, and to the umbilicus below. Distinct fluctuation developed during the next few days. A swelling appeared in the middle of the right thigh; an exploratory puncture confirmed the diagnosis of abscess; a huge abscess was opened and cleaned out; a necrotic piece of spleen was found in the abscess cavity; the thigh abscess was also opened and cleaned out. The patient made an uneventful recovery. From the pus of both abscesses Frankel's diplococcus was isolated; colonies were cultivated on agar, gelatin and peptonized broth. The author speaks of this as the first

splenic abscess due to the pneumococcus, and remarks on the presence of the typhoid bacilli at the outset, and its absence in the cultures.

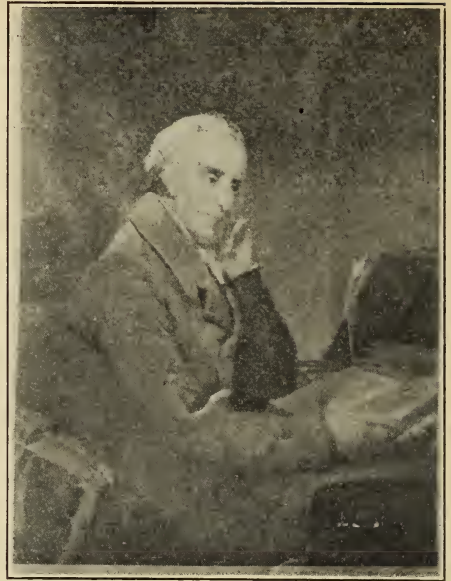
Clarence M. Dally, Martyr.—Another name has been added to the long roll of those who have sacrificed their lives in the interest of science, and it loses nothing in luster from the fact that its bearer was not widely known. Mr. Dally was simply an assistant to Thomas Edison in a long series of experiments in connection with the Roentgen rays. In the regular course of his duty it became necessary for him to handle many acids, and submit his person again and again to the influence of the mysterious rays. As a result he became afflicted with a lingering, but deadly malady. All that science could do to save him was done. He submitted to no less than seven operations, including skin-grafting and the amputation, first, of a finger, and then of both arms. He suffered "many things from many physicians," and after years of torture has died while yet in his prime. Very fortunately, however, unlike others who have fallen in a similar cause, he lived long enough to be assured that his sacrifice was not in vain.—*Newark Evening News*.

BIOGRAPHICAL SKETCHES.



THEODORE BILLROTH.

Theodore Billroth, the great Vienna surgeon, was born in Berlin in 1819. Expert with the knife and equally expert with the microscope, he was the great teacher who drew many Americans to Vienna; he was the surgical sun of Austro-Hungary, around whom revolved all the other great medical lights in the empire. Among the notable German surgeons who owe to him their excellent training and inspiration are Czerny, Gussenbauer, Mikulicz and others. Pirogoff, the great Russian surgeon, was one of his pupils. To Billroth we are indebted for the initiation of many daring operations. He first successfully resected the larynx and the stomach. His great and elaborate work on "Coccobacteria Aseptica," although now obsolete, marked an era in surgical pathology. His work on "Surgical Pathology" reached fifteen editions and has been very widely translated.



BENJAMIN RUSH.

The most conspicuous medical character in American history during the eighteenth century was Benjamin Rush. He was born on his grandfather's homestead near Philadelphia in 1745. After a careful preparatory school and college education at home and six years' apprenticeship with a doctor in Philadelphia, he went to Edinburgh, where he took his M. D. degree in 1768. After a year in the hospitals of London and Paris, he returned to Philadelphia to begin practice at the age of twenty-four. He at once became a leading spirit in the political and social movements of the day. He was a member of the Continental Congress and a signer of the Declaration of Independence. His best-known works comprehend five volumes of "Medical Inquiries and Observations." He died in 1813, after a five days' illness from typhus fever.

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Atkinson, R. C. St. Louis.
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Austin, M. B., Brunswick.
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Avery, D., Lebanon.
Ayers, Samuel, Kansas City.

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Bailey, F. W., St. Louis.
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Baird, W. C., Bogard.
Baker, Chas., Santa Fe.
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Bartlett, W., St. Louis.
Baskett, J. N., Hannibal.
Bauduy, J. K., St. Louis.
Bauduy, W. K., St. Louis.
Bauer, C. E., St. Louis.
Baumgarten, G., St. Louis.
Baumgarten, W., St. Louis.
Bayliss, W. M., Fulton.
Baysinger, S. L., Rolla.
Beale, John T., Versailles.
Beattie, T. J., Kansas City.
Beaty, Jos. G., R. F. D. No. 2 Clinton.
Becker, W. H., St. Louis.
Bedal, A. C., St. Louis.
Beedle, G. A., Kansas City.
Beeman, S. M., Chillicothe.
Beeson, H. O., Noel.
Behrens, L. H., St. Louis.
Bell, J. M., St. Joseph.
Bell, E. W., Osceola.
Bell, W. T., Stoutsville.
Bellows, G. E., Kansas City.
Berry, A. J., Warrensburg.
Berry, G. F., Kansas City.
Berry, J. W., Reform.
Berry, Robert W., Mexico.
Best, W. S., Anderson.
Bickel, J. T., Mound City.
Bilbrey, J. H., Puxico.
Billeter, W. J., Bynumville.
Billings, J. M., Lebanon.
Bingham, J. W., Pottersville.
Binnie, J. F., Kansas City.
Bishop, F. L., St. Louis.
Birney, W. L., Oakwood.
Black, W. D., St. Louis.
Blacksten, H. E., Excelsior.
Blackwell, Z. T., Joplin.
Blair, V. P., St. Louis.
Bland, B. L. S., Vandalia.
Bland, W. W., Vandalia.
Blankenship, W. R., Madison.
Blanks, C. L., Farmington.
Blaylock, G. A., Silver Lake.
Bliss, M. A., St. Louis.
Block, J., Kansas City.
Bock, A. F., St. Louis.
Bodine, M. S., Paris.
Boehm, J. L., St. Louis.
Boemler, G., St. Louis.
Bogart, T. N., Excelsior Springs.
Boggan, P. P., East Prairie.
Boggs, J. D., Rhoades.
Bohanan, W. T., Nevada.
Bohling, Cord, Pyrmont.
Boisliniere, L. C., St. Louis.
Bond, H. W., St. Louis.
Bond, Y. H., St. Louis.
Bonham, Vaughan Q., New Franklin.
Bondurant, W. E. H., Memphis.
Boogher, F., St. Louis.
Boogher, J. L., St. Louis.
Booth, D. S., St. Louis.
Borck, E., St. Louis.
Boutelje, J. J., Jefferson City.
Bounds, E. H., Hannibal.
Bourn, J. J., Hannibal.
Bowlin, B. F., Bagnell.
Bowden, L., Appleton City.
Bowman, C. B., Longtown.
Bowman, Dora E., Kansas City.
Bowman, J. W., Kansas City.
Bozarth, John A., Centerview.
Bradley, A. H., St. Louis.
Bradley, T. L., Warrensburg.
Bradley, W. E., Ethel.
Brainard, B. F., Martin City.
Bramel, H. W., McGirk.
Brandon, J. P., Essex.
Brandt, A. L., St. Louis.
Bremer, L., St. Louis.
Bresius, W. L., Gallatin.
Breuer, W. H., St. James.
Brewington, G. F., Bevier.
Bribach, B., St. Louis.
Bridges, A. C., Kahoka.

- Bridges, A. D., Portland.
 Bridges, J. B., Downing.
 Bridges, J. R., Kahoka.
 Brierly, H. A., Peculiar.
 Brierly, John B., Gun City.
 Briggs, W., St. Louis.
 Briney, E. A. P., Bloomfield.
 Bristow, G. M., Princeton.
 Britts, John H., Clinton.
 Brockhauser, C., Herman.
 Brockman, C. O., Bagnell.
 Brockman, H. H., Eldon.
 Broderick, J. K., St. Louis.
 Brokaw, A. V. L., St. Louis.
 Brooke, H., St. Louis.
 Brooks, H. S., St. Louis.
 Broome, G. W., St. Louis.
 Brown, H. G., Boswarth.
 Brown, John E., Florida.
 Brown, Jno. Young, St. Louis.
 Brown, L. S., St. Louis.
 Brown, Ralph, Kansas City.
 Brown, S. M., Monroe City.
 Brown, Tinsley, Hamilton.
 Bruehl, J., Kansas City.
 Brummall, J. D., Salisbury.
 Brunig, F. H., Kansas City.
 Brunner, E. E., Fulton.
 Buck, T. E., St. Louis.
 Buck, U. W., Rothville.
 Buckwalter, J. C., St. Louis.
 Buhman, Rudolph, St. Louis.
 Bulware, T. C., Butler.
 Burford, C. E., St. Louis.
 Buren, Chas. R., Princeton.
 Burgess, L. D., St. Marys.
 Burgess, J. W., Belle.
 Burgess, W. J., Wyaconda.
 Burke, C. L., Kansas City.
 Burke, F. W., Laclede.
 Burke, J. L., Laclede.
 Burke, J. P., California.
 Burkholder, O. F., Higbee.
 Burnett, E. C., St. Louis.
 Burnett, S. G., Kansas City.
 Burns, Robt., St. Louis.
 Burns, W. F., Newburg.
 Burrill, C. W., Kansas City.
 Burris, L., Puxico.
 Burton, S. L., Kaseyville.
 Bush, F. W., Hannibal.
 Cadwallader, I. H., St. Louis.
 Caldwell, W. C., Essex.
 Calfas, W. S., St. Louis.
 Callahan, Richard, Kansas City.
 Callaway, L. H., Nevada.
 Callison, C., Brashear.
 Calloway, G. L., Warrensburg.
 Calvert, W. J., Columbia.
 Campbell, A. V., Glendale.
 Campbell, G., St. Louis.
 Campbell, J. F., Callao.
 Campbell, O. B., St. Joseph.
 Campbell, O. H., St. Louis.
 Campbell, Wm. L., Kansas City.
 Cantwell, J. L., Bucklin.
 Caplan, L., St. Louis.
 Cape, L. W., St. Louis.
 Carbaugh, E., Kansas City.
 Carl, S. T., Kansas City.
 Carley, H. D., St. Louis.
 Carman, R. D., St. Louis.
 Carpenter, S. F., St. Joseph.
 Carryer, C. H., Hartford.
 Carr, B. F., Polo.
 Carson, G. W., St. Louis.
 Carson, N. B., St. Louis.
 Carson, Wm., Shelbyville.
 Carter, Howard, Webster Groves.
 Carter, J. J., St. Joseph.
 Carter, Marcus, Burlington Junc.
 Cartwright, C. P., Longwood.
 Carver, F. H., Madison.
 Case, Z., Warrensburg.
 Cathcart, C. P., Kansas City.
 Cave, E. S., Mexico.
 Chaddock, C. G., St. Louis.
 Chaffin, W. T., Raymore.
 Chambers, J. Q., Kansas City.
 Chambliss, E. L., Kansas City.
 Champion, J. R., Hilldale.
 Chapman, A. W., Charleston.
 Chapman, Chas., Shelbyville.
 Chase, A. U., Tiff City.
 Chastain, Chas. H., Farley.
 Chastain, E. N., Rich Hill.
 Chastain, M. T., Marshall.

- Chenoweth, L. C., Webb City.
Cherrington, J. F., Chillicothe.
Chesmore, H. P., Princeton.
Child, Scott P., Kansas City.
Chilton, J. A., Van Buren.
Chilton, J. C., Hannibal.
Chilton, T. W., Corridon.
Chowning, Thos., Hannibal.
Christian, C. H., New Bloomfield.
Churchill, E. R., Nevada.
Clagett, I. O. F., Jamesport.
Clapp, C. B., Moberly.
Clark, J. P., Perryville.
Clark, J. W., Carterville.
Clark, W. A., Jefferson City.
Clark, W. J., St. Louis.
Clark, W. J., Linn Creek.
Clarke, Chas. E., Kansas City.
Clarkson, David, Annapolis.
Clemens, Jas., St. Louis.
Clement, Jos., Nutley, N. J.
Clemmons, W. M., Cleveland.
Cline, B. J., Ardeola.
Cline, W., Appleton City.
Cloonan, M., Ruble.
Clopton, M., St. Louis.
Cobb, Chas. D., St. Louis.
Cochran, B., Brookfield.
Codwell, Victor, Poplar Bluff.
Coffee, J. T., Steelville.
Coffey, E. McD., Platte City.
Coffey, Grundy C., Platte City.
Coffey, L. M., Hitt.
Coffey, W. H., Kansas City.
Coffin, Geo. O., Kansas City.
Coil, Paul E., Mexico.
Cole, H. B., Sedalia.
Coleman, H. B., Kansas City.
Coleman, H. T., Pattonville.
Collassowitz, A., St. Louis.
Collins, M. T., Sedalia.
Collins, T. A., St. Louis.
Connolly, P. D., St. Louis.
Connoway, J. W., Columbia.
Cooney, D. C., St. Louis.
Cook, F. L., Blue Springs.
Cook, R. F., Carrollton.
Cook, T. B., Rayville.
Coon, D. W., Trenton.
Cooper, C. C., Rolla.
Copeland, C. C., Mill Grove.
Copeland, W. A., Ellington.
Corbin, D. R., Bloomfield.
Cordier, A. H., Kansas City.
Cordry, H. V., New Franklin.
Corlew, J. L., Columbia.
Cornett, W. E., Worchester.
Cottingham, T. A., Moberly.
Cotton, T. W., Van Buren.
Counts, H. J., Ulam.
Courtney, J. J., Birch Tree.
Cox, Walter S., Cuba.
Cox, H. A., Missouri City.
Cowan, R. B., Edgar Springs.
Cowan, W. G., Sedalia.
Cowley, G. B., Cowgill.
Cozad, F. A., Powersville.
Cozzens, E. P., Fredericktown.
Craig, T. B. M., Nevada.
Cramer, J. F., Cowgill.
Crandall, G. C., St. Louis.
Crawford, M. E., Mexico.
Creveling, H. C., St. Louis.
Crews, R. N., Williamsburg.
Cross, R. O., Kansas City.
Crossen, H. S., St. Louis.
Crowder, W. H., Kansas City.
Crowell, H. C., Kansas City.
Crowley, C. C., Richmond.
Crowson, E. L., Pickering.
Crum, J. A., Kleevers.
Culp, J. C., Koshonong.
Cummings, C. C., Joplin.
Cummings, H. J., St. Louis.
Cummins, K. C., Maryville.
Cumpton, V. J., Pleasant Gap.
Cuppaidge, G. O., Moberly.
Curl, J. L., St. Louis.
Curry, Edwin R., Kansas City.
Dalglish, G. D., Osceola.
Dallas, L. W., Hunnewell.
Dalton, H. C., St. Louis.
Dalton, Martin, Ferguson.
Dandurant, L. J., St. Joseph.
Dannaker, C. A., Kansas City.
Davidson, A. W., Poplar Bluff.
Davis, A. L., Arbela.
Davis, A. R. A., Bloomfield.
Davis, A. W., Kansas City.

- Davis, C. U., Fredericktown.
 Davis, G. W., Kansas City.
 Davis, I. L., Granger.
 Davis, J. C. B., Mountain View.
 Davis, J. M., Craig.
 Davis, J. R., Mokane.
 Davis, L. H., St. Louis.
 Davis, Robt. P., Woodruff.
 Davis, Thos. J., Graham.
 Davis, T. O., Maitland.
 Davis, W., St. Louis.
 Davis, W. B., St. Joseph.
 Day, Hiram, Parnell.
 Dean, Jno. McH., St. Louis.
 Dean, J. W., Maryville.
 Dean, L. E., Maryville.
 Dearing, W. A., Jamestown.
 Deatherage, W. W., St. Louis.
 Deffenbaugh, W. B., St. Joseph.
 Delameter, G. A., Rich Hill.
 De Lorme, H. A., St. Louis.
 Denman, J. I., Southwest City.
 De Pew, Frank L., Altamont.
 Deppen, R. C., St. Joseph.
 Detweiler, A. J., Columbia.
 Deutch, W. S., St. Louis.
 De Vilbliss, F., Spring Garden.
 Devin, J. F., Shelbyville.
 Dickerson, W. L., St. Louis.
 Dickerson, W. M., Renick.
 Dickson, L. M., Revere.
 Dines, G. L., Mine LaMotte.
 Dinwiddie, F. G., Camden Point.
 Dinwiddie, F. H., Higbee.
 Dixon, C. H., Holliday.
 Dixon, J. C. B., West Plains.
 Dobson, D. A., Hunnewell.
 Dodge, R. K., Polo.
 Donelan, E. A., St. Joseph.
 Dorsett, W. B., St. Louis.
 Dorsey, B. L., St. Louis.
 Doty, E. T., Anderson.
 Douglas, F. M., Clinton.
 Douglas, G. G., Ravenwood.
 Douglas, Jno. H., Dexter.
 Douglas, J. T., Ferguson.
 Douglass, W. H., Benton City.
 Douglass, W. H., Columbia.
 Dove, O. H., Kansas City.
 Dowell, G. S., Braymer.
 Dowell, R. L., Chillicothe.
 Doyle, W., St. Louis.
 Doyle, J. M., St. Joseph.
 Doyle, T. H., St. Joseph.
 Drake, N. A., Kansas City.
 Drew, F. W., Ethel.
 Dryden, U. C., Purdin.
 Duckett, T. H., Milford.
 Dudley, C. R., St. Louis.
 Dudley, G. F., St. Louis.
 Duncan, Edward, Long Branch.
 Duncan, J. H., St. Louis.
 Dunham, J. D., Pattonsburg.
 Dunham, S. A., Kansas City.
 Dunlap, W. O., Sedalia.
 Dunnivant, C. A. P., Kirkwood.
 Dunsmore, J. M., St. Joseph.
 Dutton, C. K., Moberly.
 Dwight, K. M., Hamilton.
 Eads, L. J., Hamilton.
 Eastman, F. C., Winston.
 Eatherton, J. W., Allenton.
 Eaton, J. A., Belgrade.
 Edmonds, O. R., Tina.
 Edmondson, M. T., Iconium.
 Edmonson, M. M., Kansas City.
 Edwards, J. M., Bevier.
 Edwards, W. T., West Plains.
 Ehrenfest, H., St. Louis.
 Ehrhardt, R. T., St. Louis.
 Elam, W. T., St. Joseph.
 Elbrecht, O. H., St. Louis.
 Elder, A. R., Harrisonville.
 Elkins, C. D., Jefferson City.
 Elliott, W. H., Latham.
 Ellis, A. D., Powersville.
 Ellis, C. A., Maryville.
 Ellis, D. C., Index.
 Ellis, F. B., Garden City.
 Ely, A. W., Monroe City.
 Engelbrecht, Jno., Stony Hill.
 Engman, M. F., St. Louis.
 Enloe, C. F., Jefferson City.
 Enloe, I. N., Jefferson City.
 Epperly, R. G., Prairie Hill.
 Epstein, M. J., St. Louis.
 Eskew, De Witt, Poplar Bluff.
 Estel, T. F., Altenberg.
 Ettmueller, G., Jefferson City.

- Eubank, A. E., Kansas City.
Eure, J. B., Brookfield.
Evans, J. S., Brookfield.
Evans, R. L., Boonville.
Evans, S. M., Bloomfield.
Evans, W. H., Sedalia.
Ewing, F. C., St. Louis.
- Faber, J. E., St. Louis.
Fahlen, F., St. Louis.
Fair, S. W., Raymore.
Farber, M. J., St. Joseph.
Farmer, P. J., St. Louis.
Farrington, O. P., Clarksburg.
Farney, Hayden, M., Kansas City.
Farnsworth, A. D., Drexel.
Farrow, G. W., East Lynne.
Fassett, Chas, Wood, St. Joseph.
Ferguson, W. J., Sedalia.
Ferrel, H. E., St. Louis.
Ferrell, J. J., Owensville.
Ferrell, J. J., Hannibal.
Ferrell, R. W., Bland.
Fewel, R. B., Montrose.
Fields, Thomas, Kansas City.
Ficktenkam, H. L., St. Louis.
Finley, B. E., Charleston.
Finley, R. N., St. Louis.
Fisch, Carl, St. Louis.
Fischel, W. E., St. Louis.
Fishback, M. L., Fayetteville.
Fisher, W., St. Louis.
Fisher, J. M., Columbia.
Fleet, J. B., New Franklin.
Fleming, A. W., St. Louis.
Flynt, J. F., Molino.
Foley, E. P., Moberly.
Follin, E. D., Collins.
Ford, J. S., Linn Creek.
Ford, W. H., St. Louis.
Fore, T. P., Brookfield.
Forgrave, H. S., St. Joseph.
Forgrave, L. R., St. Joseph.
Forster, Davis, St. Louis.
Forster, O. E., St. Louis.
Forsythe, R. C., Kirkwood.
Foster, Frank W., East Lynne.
Foster, Hal, Kansas City.
Foster, J. P., Lacross.
Foster, T. M., Butler.
- Fowler, S. R., St. Louis.
Fox, S. D., St. Louis.
Frankenburger, J. M., Kansas City.
Frankenthal, M. A., St. Louis.
Freeland, P. L., Joplin.
Freeman, A. B., Joplin.
French, Pinckney, St. Louis.
French, J. A., St. Joseph.
Fretwell, W. J., Unionville.
Freudenstein, W. H., St. Louis.
Freyer, B. E., Kansas City.
Freyman, A. A., Kansas City.
Frick, Wm., Kansas City.
Frick, W. J., Kansas City.
Freilingsdorf, E. H., St. Louis.
Freidman, J., St. Louis.
Fry, F. R., St. Louis.
Fritts, Otto C., Lois.
Fuchs, W. H., St. Louis.
Fulbright, C. H., St. James.
Fulkerson, P. P., St. Joseph.
Fulkerson, W. D., Trenton.
Fulton, A. L., St. Louis.
Fulton, Andrew L., Kansas City.
Fulton, Chas, M., Kansas City.
Fulton, F. H., Holt.
Funkhouser, R. M., St. Louis.
Furney, E. E., St. Louis.
- Gaines, J. R., Mussell Fork.
Gaines, J. W., Kansas City.
Galbreath, J. W., Jamison.
Gallagher, J. C., St. Louis.
Gale, F. W., Marquand, Mo.
Gamble, D. C., St. Louis.
Garner, K. C., Crosstown.
Garner, R. L., Pollock.
Gathwright, J. P., Appleton City.
Gay, R. W., Ironton.
Gayler, W. C., St. Louis.
Gehrunge, E. C., St. Louis.
Geiger, Chas. G., St. Joseph.
Geiger, Jacob, St. Joseph.
Geisinger, E. J., Unionville.
Geitz, H. A., St. Louis.
Gentry, E. N., Sturgeon.
Gentry, J. H., Shelbina.
Gerwig, H. E., Downing.
Gettys, H., St. Louis.
Gibbins, Wm. H., Clinton.

Gibbs, R. T., Hatton.
 Gilbert, E. H., Warrensburg.
 Gilleland, J. L., Olean.
 Gillmore, W. L., Winona.
 Gilman, D. C., Portland.
 Gilmer, J. E., Piedmont.
 Gilmore, E. E., Adrain.
 Gisey, Gustavus A., Montrose.
 Glahn, C. P., Leonard.
 Glasgow, F. A., St. Louis.
 Glasgow, W. C., St. Louis.
 Gleaves, O. G., St. Joseph.
 Glover, T. L., Spring Garden.
 Goebel, A., St. Louis.
 Goins, George W., Breckenridge.
 Goldman, Max, Kansas City.
 Goldstein, M. A., St. Louis.
 Golland, M., St. Louis.
 Good, C. A., St. Joseph.
 Goodier, Robert H., Hannibal.
 Goodloe, H., St. Louis.
 Goodman, Geo., Kansas City.
 Goodson, E. N., Hopkins.
 Goodwin, E. J., St. Louis.
 Gordon, Jas., Columbia.
 Gordon, David, Chillicothe.
 Gore, D. C., Marshall.
 Gosney, C. W., Hardin.
 Gowin, O. G., St. James.
 Grace, H. M., Chillicothe.
 Gradwohl, R. B. H., St. Louis.
 Graham, J. K., St. Joseph.
 Grant, J. M., St. Louis.
 Grantham, S. A., Joplin.
 Graves, Chas. H., Center.
 Graves, S. C., St. Louis.
 Graves, W. W., St. Louis.
 Gray, A. L., St. Joseph.
 Gray, C. P., Lowry City.
 Gray, Henry, Prairie Hill.
 Gray, L. L., St. John.
 Gray, L. M., California.
 Greaves, E. A., Kingsville.
 Green, Jno. Jr., St. Louis.
 Greene, J. V., Kansas City.
 Greene, L. D., Richmond.
 Greene, Chas. F., Bakersfield, Del.
 Greenlee, A. R., Kansas City.
 Greensfelder, Harry, Central.
 Greenwood, G. W., Fredericktown.

Greer, E. O., St. Louis.
 Gregory, E. H., St. Louis.
 Gresham, E. F., Sedalia.
 Griffin, J. M., Millville.
 Griffin, P. H., St. Louis.
 Griffith, Chas. E., Windsor.
 Griffith, D. R., Creighton.
 Griffith, J. D., Kansas City.
 Grindon, Jos., St. Louis.
 Gross, J. H., St. Louis.
 Grosshart, Ross, Rockville.
 Guhman, J. O., St. Louis.
 Guhman, M. J., St. Louis.
 Guss, W. C., Hannibal.
 Haase, M. E., St. Louis.
 Haire, Robert D., Clinton.
 Hale, Joseph M., Dearborn.
 Haley, O., Fredericktown.
 Haley, Robert, Brookfield.
 Hall, C. Lester, Kansas City.
 Hall, H. R., St. Louis.
 Hall Frank, Kansas City.
 Hall, J. H., Potosi.
 Hall, O. B., Warrensburg.
 Hall, L. T., Potosi.
 Haller, E. C., Harrisburg.
 Halley, Geo., Kansas City.
 Halliburton, W. D., Moberly.
 Ham, W. J., Creve Coeur.
 Hamel, Geo. F., Kansas City.
 Hamilton, Robert L., Richmond.
 Hamner, M. D., Bertrand.
 Hampton, Joseph R., R. F. D. No. 1,
 Hanawalt, H. O., Kansas City. Clinton.
 Hanks, James, Brashear.
 Hanna, M. A., Kansas City.
 Hardaway, W. A., St. Louis.
 Hardin, C. B., Kansas City.
 Harnisch, H. D., St. Louis.
 Harrelson, N. O., Kansas City.
 Harrington, J. L., Kansas City.
 Harris, D. L., St. Louis.
 Harris, H. W., Winchester.
 Harris, R. C., St. Louis.
 Harrison, A. M., Lee's Summit.
 Hartman, H. C., St. Louis.
 Hartwig, O. A., St. Louis.
 Harrison, J. F., Fulton.
 Harrutun, M. B., Joplin.

- Harwood, W. S., Renssalaer.
Hashinger, Geo. H., Kansas City.
Hasler, C. R., Winona.
Hatcher, W. H., Perryville.
Hatler, W. L., Barnett.
Hawkins, G. W., Triplett.
Hawley, N. J., St. Louis.
Hawley, T. S., St. Louis.
Haynes, Lee, Mendota.
Hays, Harry C., Kansas City.
Hays, W. H., Hannibal.
Head, Charles W., Windsor.
Heavenridge, Robert, Hannibal.
Heavenridge, Wm. E., Hannibal.
Heddens, J. W., St. Joseph.
Hedges, Frank, Jamesport.
Hedrick, C. L. V., Kansas City.
Heidorn, W. H., Bridgeton.
Helton, J. W., Green City.
Helwig, H. J., St. Louis.
Hempel, Max, St. Louis.
Henderson, F. L., St. Louis.
Henderson, W. A., Chillicothe.
Hendrix, O. B., New London.
Hennerich, J. P., St. Louis.
Henry, Fannie J., Kansas City.
Herbert, T. B., Galt.
Herchenroder, L. C., St. Louis.
Hermann, H. W., St. Louis.
Herdon, Albert S., Camden Point.
Hertic, J. C., St. Genevieve.
Hertzler, A. E., Kansas City.
Heryford, W. B., Pickering.
Herzog, G. G. A., Cuba.
Hetherington, E. M., Kansas City.
Heuer, P. J., St. Louis.
Heyer, C., St. Louis.
Hickerson, E. R., Moberly.
Hickerson, J. C., Independence.
Hicklin, O. B., New London.
Hickman, H., St. Louis.
Hickman, S. P., Ulman.
Hicks, E. S., Macks Creek.
Higgins, R. M., Webster Groves.
Higgins, G. Z., St. Louis.
Highfill, W. E., Neelyville.
Highsmith, G. R., Carrollton.
Hill, A. D., Dexter.
Hill, Howard, Kansas City.
Hill, Roland, St. Louis.
Hiller, F. B., Kahoka.
Hinch, F. E., St. Genevieve.
Hirschi, W. T., St. Louis.
Hite, H. A., Greenridge.
Hochdoerfer, D. F., St. Louis.
Hoeffler, J. P., St. Louis.
Hoffman, Phil., St. Louis.
Hoge, M. W., St. Louis.
Holland, J. S., St. Louis.
Holman, J. H., Unionville.
Holman, R. S., Boonville.
Holtgrewe, F. W., St. Louis.
Homan, Geo., St. Louis.
Hopkins, M. J., St. Louis.
Hopkins, T. A., St. Louis.
Hopper, R. L., Columbia.
Horigan, J. A., Kansas City.
Horn, A. H., Steelville.
Hornback, E. T., Hannibal.
Hornback, J. J., Metz.
Horton, W. H., Jane.
Horwitz, M. R., St. Louis.
Houck, E. F., St. Louis.
Houck, Louis, St. Louis.
Hough, C. P., Jefferson City.
Houser, F. W., California.
Houser, K., St. Louis.
Houwink, J. J., St. Louis.
Howard, A. P., St. Louis.
Howard, O. L., St. Louis.
Howard, D. F., Brookfield.
Howard, F. A., Slater.
Howell, C. F., Burlington, Junc.
Howell, J. S., Hannibal.
Howle, W. P., Charleston.
Hubbard, E. E., Kansas City.
Hubbard, Joel D., Versailles.
Hudson, T. M., Perryville.
Hughes, C. H., St. Louis.
Hulett, R. F., Rich Hill.
Hume, J. Y., Armstrong.
Humphreyville, D. L., St. Joseph.
Hunt, Jas. R., Ardmore.
Hunter, J. A., Fairfax.
Hunterson, D. L., St. Joseph.
Hurt, P. L., Boonville.
Hyde, B. C., Kansas City.
Hyde, Frank, Eminence.
Hynds, A. J., Kansas City.
Hypes, B. M., St. Louis.

Inglish, J. E., Bacon.
Inman, S. L., Valley Park.
Isenberg, H. G., Tea.
Islaub, J. W., St. Joseph.
Iuen, F. J., Kansas City.

Jackson, C. M., Columbia.
Jackson, Jabez N., Kansas City.
Jacobs, Ben, Kansas City.
Jacobs, J., Conway.
Jacobson, H., St. Louis.
James, J. A. J., St. Louis.
James, S. C., Kansas City.
Jenkins, C. E., Brookfield.
Jennings, C. A., Salisbury.
Jennings, M. D., St. Louis.
Jennings, J. Ellis, St. Louis.
Jensen, N. N., Florissant.
Jerard, H., Pleasant Hill.
Jerowitz, H. D., Kansas City.
Johnson, E. A., Nevada.
Johnson, E. H., St. Louis.
Johnson, F. M., Gorin.
Johnson, F. P., St. Louis.
Johnson, G. A., Holliday.
Johnson, H. C., Meadville.
Johnson, H. McC., St. Louis.
Johnson, J. H., Kansas City.
Johnson, J. McBride, West Plains.
Johnson, L. C., Centerview.
Johnson, R. L., Rolla.
Johnson, W. E., Warrensburg.
Johnson, Wm. E., Lois.
Johnston, Wm., St. Louis.
Jonas, E., St. Louis.
Jones, B. C., Poplar Bluff.
Jones, H. S., Linden.
Jones, H. W., St. Louis.
Jones, J. T., Queen City.
Jones, K. P., Kansas City.
Jones, L. J., Linden.
Jones, M. D., St. Louis.
Jones, O. F., Kansas City.
Jordan, A. P., St. Louis.
Jordon, J. E., Hallsville.
Jose, J. E., Belle.

Kabler, P. L., Hannibal.
Kaltenbach, E., Craig.
Kane, R. Emmett, St. Louis.

Karges, C., St. Louis.
Kay, Z. L., Joplin.
Keber, J. B., St. Louis.
Keeble, R. R., St. Louis.
Keener, Wm. M., Jamesport.
Keller, R. G., Freeman.
Kelley, R. Q., Versailles.
Kelly, Sam, Sedalia.
Kelso, R. S., Joplin.
Keith, W., St. Louis.
Kendall, W. A., Poplar Bluff.
Kenney, W. L., St. Joseph.
Kerlagon, C. C., Bellview.
Kessenger, J. C., Milan.
Kessler, E. H., St. Louis.
Kessler, O. C., Ravenwood.
Kessler, S. F., St. Joseph.
Ketchum, C. M., Carthage.
Kieffer, A. R., St. Louis.
Kier, W. F., St. Louis.
Kimsey, J. T., Bloomington.
Kincheloe, M. B., Joplin.
King, R. M., St. Louis.
Kinner, Wm., Clayton, R. F. D. No. 1.
Kirkpatrick, Harry E., Mendon.
Kirschner, P. J., St. Joseph.
Kirschner, W. C. G., St. Louis.
Klein, S., St. Louis.
Klueber, H. C., California.
Knabb, F. P., Valley Park.
Knoche, P. J., Kansas City.
Knott, Isaiah, Keytesville.
Knott, W. H., Hume.
Knott, Minerva, Sedalia.
Koch, C. D., Maryville.
Koch, O. W., Des Peres.
Koetter, A. F., St. Louis.
Kolbenheyer, F., St. Louis.
Krebs, F. J. V., St. Louis.
Krebs, G. A., St. Louis.
Kouns, D. H., Tuscumbia.
Krenning, W. J., St. Louis.
Kreiger, J. A., St. Louis.
Kuhn, D., St. Louis.
Kuhn, Wm. F., Kansas City.
Kyger, J. W., Kansas City.

Lahmer, Ira B., Kansas City.
Laidley, L. H., St. Louis.
Lancaster, H. W., Rich Hill.

- Landaker, E., Collins.
Landsdale, John M., Kansas City.
Lane, J. W., Linneus.
Langan, W. J., St. Louis.
Lange, A. F., St. Louis.
Lanier, Herbert, Martinsburg.
Lanning, J. H., Kansas City.
Lanning, R. W., St. Genevieve.
Lantz, G. N., Brookfield.
Lanyon, W. H., Joplin.
Lare, H. S. P., St. Louis.
Larew, J. L., St. Louis.
Large, S. D., Hopkins.
Larrabee, J. A., Barnard.
La Rue, Harry, Dexter.
Latham, H. W., Latham.
Laurazana, Ligni, Kansas City.
Lawrence, W. S., St. Louis.
Leach, Chas. F., Feurisville.
Leach, H. T., Elston.
Lebrecht, J. C., St. Louis.
Leighton, W. E., St. Louis.
Lee, B. J., Norborne.
Lee, C. H., Fayette.
Lee, Herbert, St. Joseph.
Leeper, C. C., Braymer.
Lemen, J. R., St. Louis.
Leonard, H. O., Kansas City.
Leonard, Jno. W., St. Joseph.
Leonard, W. H., Kansas City.
Leonard, P. I., St. Joseph.
Lester, Chas. H., Kansas City.
Lewis, B., St. Louis.
Lewis, Chas., St. Louis.
Lewis, C. O., Fayette.
Lewis, J. K., Kansas City.
Lewis, Nannie P., Kansas City.
Lichtenberg, Jos., Kansas City.
Lightfoot, Frank, Excelsior Springs.
Lightner, C. R., St. Louis.
Lindley, W. T., Hamilton.
Link, J. J., St. Louis.
Lionberger, J. R., St. Louis.
Lockwood, T. F., Butler.
Lockwood, W. A., Conway.
Loeb, Clarence, St. Louis.
Loeb, H. W., St. Louis.
Lofton, E. A., Laddonia.
Loftus, W. V., St. Louis.
Logan, James E., Kansas City.
Long, J. M., St. Louis.
Long, O., Harrisburg.
Longacre, C. E., Freeman.
Lopp, J. E., Jefferson City.
Love, J. G., Sedalia.
Lowrey, Ernest, Excelsior Springs.
Lowrey, J. M., Centerville.
Loyd, T. B., Paris.
Ludwig, C. V. F., St. Louis.
Luedeking, R., St. Louis.
Luscher, L. W., Kansas City.
Lutman, H. M., Versailles.
Luton, L. S., St. Louis.
Lutz, F. J., St. Louis.
Luscher, L. W., Kansas City.
Lyman, H., St. Louis.
Lyle, A. E., Butler.
Lynch, G. D., Tindall.
Mackey, A. H., Gorin.
Magee, W. K., Moberly.
Mairs, E. J., Newton.
Manahan, J. H., Kansas City.
Mangus, C. W., Moberly.
Mangus, T. D., Clark.
Mann, A. W., Oak Grove.
Manning, L. R., Brewer.
Mardorf, W. C., St. Louis.
Mark, E. G., Kansas City.
Marks, H., St. Louis.
Marsh, J. T., Liberty.
Marsh, J. W., Tipton.
Marshall, Ira A., Ironton.
Martin, A. J., East Prairie.
Martin, H. L., Kansas City.
Martin, J. B. Jr., Lohman.
Martin, J. B. Sr., Russellville.
Martin, W. H., Kahoka.
Martin, T. A., St. Louis.
Martin, Z. T., Fulton.
Marx, Ella, St. Louis.
Mason, J. W., Brookfield.
Mathews, L. I., Joplin.
Matthews, F. H., Liberty.
Max, C. O. C., St. Louis.
Mayes, G. I., Joplin.
Mayfield, L. S., Puxico.
Maynard, Geo. K., Arbelo.
Meisenbach, A. H., St. Louis.
Menees, George W., Clinton.

- Melvin, J. M., St. Louis.
 Menestrina, J. F., St. Louis.
 Meng, E. R., St. Louis.
 Metcalf, W. A., Steelville.
 Metlock, Clarence, Steelville.
 Meyer, A. G., St. Genevieve.
 Meyer, H. H., St. Louis.
 Middleton, James, Kansas City.
 Milam, B. J., Macon.
 Miles, E. D., Osceola.
 Miller, Abram, Kansas City.
 Miller, A. B., Macon.
 Miller, E. H., Liberty.
 Miller, E. M., Mound City.
 Miller, G. W., Joplin.
 Miller, Hugh, Kansas City.
 Miller, J. J., St. Louis.
 Miller, James M., Montrose.
 Miller, J. W., Mound City.
 Miller, S. H., Joplin.
 Miller, S. W., Norborne.
 Miller, W. H., Macon.
 Miller, W. McNab., Columbia.
 Mills, Sherman, Macks Creek.
 Milnes, G. S., Milan.
 Minnick, A. G., Locksprings.
 Minton, J. R., Bigelow.
 Mitchell, E. H., Pottersville.
 Mitchell, E. L., Lancaster.
 Mitchell, G. B., Kansas City.
 Mitchell, J., Lookout.
 Mitchell, Jno. T., Kansas City.
 Mitchell, W. F., Lancaster.
 Moffitt, J. H., Redford.
 Montgomery, E. A., Unionville.
 Montgomery, J. M., Lowndes.
 Montgomery, J. S., Milan.
 Montgomery, W. E., Kansas City.
 Moore, B. W., St. Louis.
 Moore, C., St. Marys.
 Moore, George M., Linn Creek.
 Moore, H. M., St. Louis.
 Moore, G. A., Dunlap.
 Moore, J. G., St. Louis.
 Moore, J. H., Centerville.
 Moore, J. W., St. Louis.
 Moore, Milton H., Dearborn.
 Moore, O. L., Jefferson City.
 Moore, R. D., Central.
 Moore, T. E., Springfield.
 Moore, W. G., St. Louis.
 Moorehouse, Emma, Appleton City.
 Morfit, J. C., St. Louis.
 Morganstein, H. J., Weingarten.
 Morris, C. C., St. Louis.
 Morris, Robert H., Linneus.
 Morris, Wm. C., Kansas City.
 Morriss, H. A., St. Louis.
 Morrison, J. B., Maryville.
 Morrison, W. Scott, Rushville.
 Morrow, C. J., Kansas City.
 Morrow, Wm. F., Kansas City.
 Morton, Daniel, St. Joseph.
 Morton, D. F., Perryville.
 Mosby, C. V., St. Louis.
 Mosher, Geo. C., Kansas City.
 Moss, F. M., Paris.
 Moss, Woodson, Columbia.
 Mott, Jno. S., Kansas City.
 Mott, J. W., Poplar Bluff.
 Moulder, J. D., Puxico.
 Mount, R. L., Mirable.
 Mudd, H. G., St. Louis.
 Mueller, E., St. Louis.
 Mueller, V. J., St. Louis.
 Murphy, F. E., Kansas City.
 Murphy, J. C., St. Louis.
 Murphy, R. Brent, St. Louis.
 Murray, Elmore, Parkville.
 Murray, L. F., Holden.
 Musson, E. H., Rockingham.
 Myer, J. S., St. Louis.
 Myer, Max, Columbia.
 Myers, G. T., Macks Creek.
 McAdam, J. D., Prairie Hill.
 McAlester, A. W., Columbia.
 McAllister, W. A., Centralia.
 McBride, C. E., Webb City.
 McCabe, L. L., St. Louis.
 McCall, G. D., Fulton.
 McCall, H. B., Kansas City.
 McCall, W. K., Worchester.
 McCandless, O. H., Kansas City.
 McCandless, W. A., St. Louis.
 McClanahan, J. M., Guilford.
 McClure, J., St. Louis.
 McComas, A. R., Sturgeon.
 McComb, J., Lebanon.
 McComb, J. A., Lebanon.
 McComb, J. L., Kenoma.
 McCrea, Maggie, Kansas City.
 McCullough, George, Kearney.

McCullum, R. W., Center.
 McDonald, Chett, Kansas City.
 McDonald, Park L., Kansas City.
 McEwen, Oliver, Shandonale.
 McGill, W. J., St. Joseph.
 McGlothran, A. B., St. Joseph.
 McIntyre, A. J., Hannibal.
 McKay, H. S., St. Louis.
 McKee, Jos. W., Kansas City.
 McKee, L. D., St. Francisville.
 McKensie, D. H., Lesterville.
 McLean, M. H., St. Louis.
 McMichael, A., Rockport.
 McMurry, M. C., Paris.
 McNarry, C. B., Rockville.
 McNeil, Geo. E., Sedalia.
 McNutt, W. B. A., Monroe City.
 McPheeters, Wm., St. Louis.
 McQuade, H. D., Kansas City.
 McVey, Newton, Kansas City.

Nally, H., Cainsville.
 Nash, G. A., Maryville.
 Nasse, E., Sedalia.
 Neff, F. C., Kansas City.
 Neff, R. L., Joplin.
 Nesbitt, E. P., Sheridan.
 Neuhoff, F., St. Louis.
 Newcomb, Phil, St. Louis.
 Newell, M. E., St. Louis.
 Newhouse, Stanley, Kansas City.
 Newland, C. W., Bogard.
 Newman, C. W., Hinton.
 Newman, L. E., St. Louis.
 Nichols, D. J., West Plains.
 Nichols, G. M., Higbee.
 Nicholson, C. M., St. Louis.
 Nicks, H. G., St. Louis.
 Nietert, H. L., St. Louis.
 Nieweg, J. W., Lois.
 Nifong, F. G., St. Louis.
 Nixdoorf, P. A., Pleasant Farm.
 Noel, Frank, Unionville.
 Norman, J. B., California.
 Norris, E. J., St. Louis.
 Norris, T. J., Macon.
 Norris, W. A., Columbia.
 Norwine, J. J., Poplar Bluff.
 Norwood, W. W., Russellville.
 Noyes, Guy L., Columbia.
 Nunn, G. G., Joplin.

O'Connor, C., Kansas City.
 O'Dell, T. T., Ellington.
 O'Donnell, Alfred, Kansas City.
 Ohmann-Dumesnil, A. H., St. Louis.
 O'Reilly, R. J., St. Louis.
 Orr, C. J., St. Louis.
 Osborne, J. F., Henry.
 Outten, W. B., St. Louis.
 Oven, T. P., Brookfield.
 Overholser, M. P., Harrisonville.
 Overstreet, W. C., Sedalia.
 Owen, H. I., Fulton.
 Owens, F. C., Agency.
 Owens, I. M., Belle.
 Owens, R. J., Mill Spring.
 Owens, S. P., Moberly.
 Owens, Wm., Oak Dale.
 Ozias, C. O., Warrensburg.

Padberg, Louis R., St. Louis.
 Palmer, W. C., Dayton.
 Parker, O. H., Kansas City.
 Parkhurst, C. L., Hustonia.
 Parks, Henry, Dunksburg.
 Parrish, E. E., Memphis.
 Parrish, A. E., Memphis.
 Parrish, J. C., Vandalia.
 Patterson, F. A., St. Joseph.
 Patterson, W. R., Tipton.
 Patton, C. O., McFall.
 Paul, T. M., St. Joseph.
 Pavne, H. C., Paris.
 Payne, T. J., Fayette.
 Pearce, H. E., Kansas City.
 Perkins, I. M., Lebanon.
 Perkins, Jno. W., Kansas City.
 Pettijohn, A. C., Brookfield.
 Pettijohn, N. J., Kansas City.
 Pettit, L. M., Greenville.
 Pfeifferberger, J. M., St. Louis.
 Pfister, J. D., Fern Ridge.
 Phillips, Elden, Bloomfield.
 Phillips, G. M., Commercial.
 Pierce, H. M., St. Louis.
 Pielt, K. S., Chillicothe.
 Pierpont, J. E., Skidmore.
 Pifer, J. D., Joplin.
 Pile, O. F., Memphis.
 Pim, L. T., St. Louis.
 Pitman, John, Kirkwood.
 Pitney, Orville, Forest Green.

Pitts, Barton, St. Joseph.
 Platter, A. E., Memphis.
 Poague, Samuel A., Clinton.
 Pollard, D. A., Barnard.
 Pollard, H. M., Shelby.
 Pollard, M. M., Guilford.
 Pollmann, L. P., St. Louis.
 Popejoy, H. R., High Point.
 Popper, Morris, St. Louis.
 Porter, Allen, Kansas City.
 Porter, D. R., Kansas City.
 Porter, J. E., Knobnoster.
 Porter, Wm., St. Louis.
 Porth, J. P., Jefferson City.
 Post, M. H., St. Louis.
 Postelwaite, J. A., Tarkio.
 Potter, Geo. C., St. Joseph.
 Potter, T. E., St. Joseph.
 Potts, Jerome D., Boonville.
 Powell, C. H., St. Louis.
 Prichard, J. B., St. Louis.
 Printz, Herman, St. Louis.
 Prowell, J. D., Longwood.
 Punton, John, Kansas City.
 Putman, B. B., Marceline.
 Putman, Ola, Marceline.
 Quigley, B. T., Mound City.
 Radamacher, J. J., Meta.
 Ragan, S., New London.
 Rains, N. J., Knobnoster.
 Ralph, A. B., Missouri City.
 Ramsey, R. D., Garden City.
 Randle, H. T., Clayton.
 Rassieur, L., St. Louis.
 Rathbone, F. W., Kansas City.
 Ravold, A., St. Louis.
 Reagan, C. W., Macon.
 Reder, Francis, St. Louis.
 Redman, Spence, Platte City.
 Redmon, S. H., Tipton.
 Reed, Wm. H., Kansas City.
 Reid, F., Humphreys.
 Reid, H. L., Charleston.
 Reid, Florence Janet, Hannibal.
 Reiley, J. F., West Plains.
 Reilley, Wm., St. Louis.
 Remme, C. F., St. Louis.
 Renaud, E. C., St. Joseph.
 Renfroe, J. H., Fredericktown.

Reyling, F. L., Kansas City.
 Reynolds, J. B., St. Joseph.
 Reynolds, S. H., Maplewood.
 Rhoades, H. A., Foster.
 Rhoads, M. H., Austin.
 Rice, D. F., St. Louis.
 Rice, F. D., Lucerne.
 Rice, John J., Kearney.
 Rice, John M., Columbus.
 Rice, J. T., Liberty.
 Richards, E. E., Tarkio.
 Richards, T. C., Browns Station.
 Richardson, K. B., Kansas City.
 Ridge, I. M., Kansas City.
 *Ridings, J. C., Cairo.
 Riegle, D. H., Kansas City.
 Riesmeyer, L. T., St. Louis.
 Riley, R. D., St. Louis.
 Riley, C. M., Alton, Ills.
 Ring, Frank, St. Louis.
 Rinninger, Will, St. Louis.
 Ritter, C. A., Kansas City.
 Rhoads, M. H., Austin.
 Roberts, Clarence, Kansas City.
 Roberts, C. S., Kansas City.
 Robertson, W. M., St. Louis.
 Robertson, J. A., Kansas City.
 Robertson, J. M., Latham.
 Robinson, A. C., St. Louis.
 Robinson, E., Kansas City.
 Robinson, J. F., Nevada.
 Robinson, J. L., Kansas City.
 Rodes, N. R., Mexico.
 Rogers, J. C., Kansas City.
 Rogers, W. H., Asbury.
 Rohlfing, C. G., St. Louis.
 Rohlfing, L. C., St. Louis.
 Rohlfing, H. A. L., St. Louis.
 Rohlfing, L. C., St. Louis.
 Roland, W. P., Bevier.
 Rootes, G. F., Tebbitts.
 Roseborough, F. H., St. Louis.
 Rosenwald, Leon, Kansas City.
 Ross, J. B., St. Louis.
 Ross, L. C., Winona.
 Rothstein, H. M., St. Louis.
 Rothwell, C. A., Mexico.
 Rothwell, J. H., Liberty.
 Rowe, H. J., Willow Springs.
 Rowe, J. M., Charleston.
 Rowe, Samuel B., Rolla.

Rowell, H., Kearney.
 Roy, F. K., Hagers Grove.
 Royer, B. F., Clearmont.
 Rule, J. B., St. Louis.
 Rumbold, F. M., St. Louis.
 Rush, G. B., Macon.
 Rush, Wm., St. Louis.
 Russell, E. L., Kansas City.
 Russell, J. W., Longtown.
 Russler, J. J., St. Louis.
 Rutledge, G. M., St. Genevieve.
 Ryan, F. M., Quitman.

Sampson, J. H., St. Joseph.
 Sams, Wm. M., Kansas City.
 Samuels, L., Bowdry.
 Sanders, St. Elmo, Kansas City.
 Sandzen, Carl, Kansas City.
 Sargent, D. A., Hopkins.
 Sauer, W. E., St. Louis.
 Saunders, E. W., St. Louis.
 Sawyer, J. F., Kansas City.
 Saxl, E., St. Louis.
 Say, W. J., St. Louis.
 Sayler, H. L., Elmo.
 Schaufler, E. W., Kansas City.
 Schaufler, Robt. McE., Kansas City.
 Scherck, H. J., St. Louis.
 Schisler, E., St. Louis.
 Schleiffarth, C. W., St. Louis.
 Schleiffarth, E. L., St. Louis.
 Schlossstein, A., St. Louis.
 Schlossstein, A. G., St. Louis.
 Schloz, P., St. Louis.
 Schlueter, R. E., St. Louis.
 Schmalhorst, D. E., St. Louis.
 Schmid, W. F., St. Joseph.
 Schmidt, Richa, Hannibal.
 Schofield, L. J., Warrensburg.
 Schooley, R. C., Robins.
 Schroeder, A. H., Braymer.
 Schuchat, W. L., St. Louis.
 Schuck, Phil, St. Louis.
 Schulte, F. A., St. Louis.
 Schuchat, W. L., St. Louis.
 Schudde, Otto N., Vienna.
 Schutz, W. H., Kansas City.
 Schwab, S. I., St. Louis.
 Schwab, B. C., Ardmore.
 Schwarz, H., St. Louis.
 Schwarze, A., St. Louis.

Scott, J. M., St. Louis.
 Scott, J. N., Kansas City.
 Scott, J. U., Harrisonville.
 Seba, John D., Bland.
 Sebastain, J. P. Patterson.
 Seevers, John, Osceola.
 Sellers, M. L., Anderson.
 Selvidge, L. B., Collins.
 Senseney, E. M., St. Louis.
 Sevier, Robert, Richmond.
 Sevier, R. E., Liberty.
 Sexton, M. P., Kansas City.
 Seybold, J. W., Poplar Bluff.
 Shankland, William M., Clinton.
 Shanklin, B., St. Louis.
 Shanks, A. L., Hannibal.
 Shapleigh, J. B., St. Louis.
 Sharp, Wm. L., Mt. Steare.
 Sharpe, N. W., St. Louis.
 Shattinger, C., St. Louis.
 Shawhan, R. C., Hale.
 Sheetz, Robert, Orrick.
 Sheets, C. C., Greenville.
 Sheldon, G. H., St. Louis.
 Sheldon, S., Trenton.
 Sheldon, T. J., Lowry City.
 Shelton, M. C., Joplin.
 Sherer, Jos. W., Kansas City.
 Shields, W. B., St. Louis.
 Shirk, W. S., Sedalia.
 Shobe, H. G., Paris.
 Shoemaker, W. A., St. Louis.
 Short, Martha J., Rolla.
 Shotwell, Chas. B., Richmond.
 Shrader, E. W., Moberly.
 Shuck, L. I., Nelson.
 Shutt, C. H., St. Louis.
 Shuttee, H. C., West Plains.
 Shy, M. P., Knobnoster.
 Sibley, F. C., St. Louis.
 Sieving, H. J. C., St. Louis.
 Simmons, B. B., Oregon.
 Simon, J. H., St. Louis.
 *Simpson, A. E., Charleston.
 Simpson, A. J., Chillicothe.
 Simpson, J. T., Holden.
 Simpson, William J., Weston.
 Simpson, W. R., Chillicothe.
 Singleton, J. M., Kansas City.
 Sisson, W. B., Kahoka.
 Slaughter, S. C., Fredericktown.

- Slayden, J. L., Dexter.
 Slayden, Robt. T., Kansas City.
 Sloan, Robt. T., Kansas City.
 Sluder, G., St. Louis.
 Smiley, F. R., Boonville.
 Smith, Avis E., Kansas City.
 Smith, B. F., Southwest City.
 Smith, Ben H., St. Joseph.
 Smith, B. T., Newburg.
 Smith, Elsworth, St. Louis.
 Smith, E. S., Macon.
 Smith, Ira, Austin.
 Smith, J. C., St. Joseph.
 Smith, J. C., St. Louis.
 Smith, J. D., Shelbyna.
 Smith, J. H., Kansas City.
 Smith, J. M., Orla.
 Smith, J. M. P., Poplar Bluff.
 Smith, J. W., Fulton.
 Smith, J. W., St. Louis.
 Smith, Jas, W., Richmond.
 Smith, M. A., Gallatin.
 Smith, Paul C. Fayette.
 Smith, R. J., Appleton City.
 Smith, R. M., Kansas City.
 Smith, W. S., Belgrade.
 Snider, J. S., Kansas City.
 Snodgrass, C. A., St. Louis.
 Snyder, A. R., Joplin.
 Son, E. R., Osage City.
 Songer, H. E., Jamesport.
 Soper, H. W., St. Louis.
 Southern, J. N., Atlanta.
 Spain, K. C., St. Louis.
 Spaulding, Chas, L., Kansas City.
 Spears, Robt. S., West Plains.
 Spencer, F. H., St. Joseph.
 Spencer, H. N., St. Louis.
 Spiegelhalter, J., St. Louis.
 Spooner, E. W., St. Louis.
 Spotts, B. W., Marshall.
 Spriggs, M. L., Joplin.
 Spurgon, M. E., Red Bird.
 Stamey, J. L., Joplin.
 Standley, E. D., Linneus.
 Standley, Kathryn, Brookfield.
 Standley, Z. T., Laclede.
 Statte, E. F., Beaman.
 Stauffer, W. H., St. Louis.
 Steedman, J. G., St. Louis.
 Steer, Justin, St. Louis.
 Stephens, Nannie A., Kansas City.
 Steven, B. N., Chillicothe.
 Stevens, C. D., St. Louis.
 Stewart, E. L., Kansas City.
 Stewart, Floyd, St. Louis.
 Stewart, J. B., Clarksburg.
 St. John, O., Pineville.
 St. John, R. L., Howland.
 Stocking, L. C., St. Louis.
 Stockwell, B. E., St. Louis.
 Stoffel, R. J., St. Louis.
 Story, C. A., Diehlstadt.
 *Stowers, J. P., Holt.
 Stratton, C. D., Rothville.
 Stratton, C. S., Roscoe.
 Strauss, Leon, St. Louis.
 Street, St. Clair, Kansas City.
 Stratton, C. D., Rothville.
 Strickland, W. R., Rockport.
 Stuckle, W. P., Clyde.
 Suddarth, C. H., Smithville.
 Suggett, O. L., St. Louis.
 Sullivan, E. W., Osceola.
 Summa, Hugo, St. Louis.
 Summa, H. H., St. Louis.
 Suter, F., Perry.
 Sutter, O., St. Louis.
 Sutton, Bertha E., Trenton.
 Sutton, F. L., Sedalia.
 Sutton, N. E., Trenton.
 Swaney, W. D., Linkville.
 Swope, W. A., Wheeling.
 Tadlock, H. L., Kearney.
 Tainter, Paul, Freeburg.
 Talbot, Ambrose, Kansas City.
 Talbot, E. S., Appleton City.
 Talbot, Hudson, St. Louis.
 Tanquary, J. H., St. Louis.
 Tatum, Harry, Brunswick.
 Taussig, A. E., St. Louis.
 Taussig, F. J., St. Louis.
 Taylor, L. G., Kansas City.
 Taylor, W. E., Ohio.
 Taylor, W. F. S., Poplar Bluff.
 Teel, A. W., Vincennes, Iowa.
 Teel, S. M., Prairie Home.
 Temple, C. H., Rockford.
 Temple, J. W., Eldon.
 Terril, J. O., Vandalia.
 Tesson, N. A. G., Kansas City.

- Thomas, A. W., Kansas City.
 Thomas, C. E., St. Joseph.
 Thompson, G. B., Kansas City.
 Thompson, Geo. R., St. Joseph.
 Thompson, H. A., Lanton.
 Thompson, James, Kansas City.
 Thompson, J. H., Kansas City.
 Thompson, J. M., Meadville.
 Thompson, R. J., Norborne.
 Thompson, W. G., Holden.
 Thompson, W. S., Armstrong.
 Thornton, J. E., Columbia.
 Thornton, T. R., Kansas City.
 Thorpe, A. V., Jamestown.
 Thrailkill, E. H., Kansas City.
 Thrope, J. L., Jefferson City.
 Thurman, E. J., Fenton.
 Tiedemann, E. F., St. Louis.
 Tiffany, F. B., Kansas City.
 Tiller, J. A., Leora.
 Tilton, A. L., Leslie, S. Dakota.
 Todd, J. H., Maryville.
 Todd, L. A., St. Joseph.
 Toney, G. W., Piedmont.
 Townsend, J. A., Unionville.
 Townsend, J. P., Potosi.
 Tremaine, G. W., Tavern.
 Trimble, Wm. K., Kansas City.
 Triplett, J. S., Harrisonville.
 Trippier, F. L., College Mound.
 Troutman, C. A., St. Louis.
 Tucker, A. J., Sedalia.
 Tuholske, H., St. Louis.
 Tull, H. W., Carrollton.
 Tupper, P. Y., St. Louis.
 Tureman, H. G., Kansas City.
 Turnbaugh, T. B., Bloomfield.
 Tuttle, G. M., St. Louis.
 Tygart, C. A., St. Joseph.
 Tyler, R. S., Densburg.
 Tyree, W. C., Kansas City.
 Twyman, G. T., Independence,

 Valle, J. F., St. Louis.
 Vandiever, C. E., Hannibal.
 Van Eman, F. T., Kansas City.
 Van Hook, H. M., St. Louis.
 Van Meter, A., Lamar.
 Vasterling, P. F., St. Louis.
 Vaughan, H. C., Shelby.
 Vaughan, J. W., St. Louis.

 Veidt, E. J., Rockville.
 *Vernon, C. T., Mexico.
 Vernon, G. W., Dexter.
 Vessells, F. M., Perryville.
 Vitt, Rudolph, St. Louis.
 Vogt, G. W., St. Louis.
 Vogt, W. H., St. Louis.
 Vollmer, P., St. Louis.
 Von der Au, O. L., St. Louis.
 Von Quast, E., Kansas City.

 Waddell, Susan C., Kansas City.
 Wale, D. V., Carthage.
 Wall, A. H., Kansas City.
 Walker, G. D., Eldon.
 Walker, H. L., St. Joseph.
 Walker, R. P., Belton.
 Wallace, C. H., St. Joseph.
 Wallace, E. J., Centralia.
 Wallace, G. R., Bertand.
 Wallace, J. E., Gantt.
 Wallace, J. S., Brunswick.
 Wallace, W. S., Excelsior Springs.
 Wallis, F. C., Maryville.
 Wallis, J. R., Montrose.
 Wallis, W. M., Maryville.
 Walter, Fred, Perry.
 Walter, W. F., Englewood.
 Waltzen, S. W., Urich.
 Ward, E. P., St. Louis.
 Ward, T. J., Birmingham.
 Warden, J. L., Independence.
 Ware, Chas., St. Louis.
 Waterman, J. A., Breckenridge.
 Wates, Wm., New London.
 Watkins, C. H., Joplin.
 Watson, B. F., Kansas City.
 Watts, C. W., Fayette.
 Webster, C. L., Trenton.
 Wedding, E. V., Kansas City.
 Weeb, W. E., Macon.
 Weinsberg, H. A., St. Louis.
 Weiterer, H. L., St. Louis.
 Welch, A. J., Kansas City.
 Welch, J. F., Salisbury.
 Welch, W. A., Callao.
 Well, Wm., Versailles.
 Wells, H. P., St. Louis.
 Wessler, F. W., St. Louis.
 Whaley, Roy, Browning.
 Whaley, D. L., Browning.

- Wheat, B. F., Hale.
 Wheeler, B. H., Kansas City.
 Wheeler, J. F., Herndon.
 Wheeler, W. S., Kansas City.
 Whelpley, H. M., St. Louis.
 Whippley, N. L., Pleasant Gap.
 White, Alex, Lakenan.
 White, J. A., New Franklin.
 White, W. L., Springhill.
 Whittington, W. L., St. Joseph.
 Wiatt, W. S., East St. Louis, Ill.
 Wicks, F. M., Center.
 Widner, A. W., Newton.
 Wiener, M., St. Louis.
 Wichmann, H. L., St. Louis.
 Wiles, W. T., Bakerfield.
 Wilfley, O. S., Millersburg.
 Wilkes, B. A., St. Louis.
 Wilkerson, J. O., Polo.
 Will, S. J., Mehlville.
 Williams, D. E., Osceola.
 Williams, Ira, Maitland.
 Williamson, C. W., Poplar Bluff.
 Williamson, J. W., St. Louis.
 Willis, H. T., Shelbyna.
 Willitt, W. C., Kansas City.
 Wilson, A., St. Louis.
 Wilson, A. H., Kansas City.
 Wilson, Dora G., Kansas City.
 Wilson, Eli, Leora.
 Wilson, G. S., Fortuna.
 Wilson, John, Kansas City.
 Wilson, J. P., Holt.
 Wilson, R. E., St. Louis.
 Wilson, R. P. C., Platte City.
 Winn, John W., Platte City.
 Winchester, A. N., Joplin.
 Windsor, A., Poplar Bluff.
 Windsor, N. W., St. Louis.
 Wingo, T. B., Dexter.
 Winn, Marvin, Saverton.
 Winningham, W. H., Edinburg.
 Winters, H. S., Acorn Ridge.
 Winter, W., St. Louis.
 Winters, M. S., Asherville.
 Witherspoon, T. C., St. Louis.
 Witter, W. L., Milan.
 Woldridge, H. L., Breckenridge.
 Wolf, I. J., Kansas City.
 Wolfner, H. L., St. Louis.
 Woltzen, S. W., Urich.
 Wood, A. G., Lentner.
 Wood, A. M., Lentner.
 Wood, E. A., Sedalia.
 Wood, J. T., Harrisburg.
 Wood, L. M., Pleasant Hill.
 Wood, N. P., Independence.
 Wood, W. H., Brownfield.
 Woodruff, F. E., St. Louis.
 Woods, W. S., Elmo.
 Woodson, C. R., St. Joseph.
 Woolsey, N. B., Braymer.
 Wren, J. A., Woodlandville.
 Wright, C. O., Poplar Bluff.
 Wright, Leo S., Lowrey City.
 Wright, J. B., Trenton.
 Wright, U. S., Fayette.
 Wyer, H. G., Kirkwood.
 Wysong, W. L., Missouri City.
 Yancey, E. F., Sedalia.
 *Yates, J. R., Joplin.
 Yates, Martin, Fulton.
 Yates, W. V., Callao.
 Young, D. H., Fulton.
 Young, H. W., St. Louis.
 *Young, Robert E., Jefferson City.
 Zahorsky, Jno., St. Louis.
 Zey, E. G., Butler.
 Zilman, A. W., Indian Grove.
 Zoll, F. C., Warrensburg.
 Zwart, B. H., Kansas City.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison.....	E. E. Richards...	Tarkio.....	A. McMichael...	Rockport.
Audrain.....	Robert W. Berry...	Mexico.....	C. A. Rothwell...	Mexico.
Bates.....	A. E. Lyle.....	Butler.....	E. N. Chastian...	Rich Hill.
Boone.....	J. E. Thornton...	Columbia.....	W. A. Norris...	Columbia.
Buchanan.....	P. I. Leonard.....	St. Joseph.....	Chas. W. Fassett...	St. Joseph.
Butler.....	W. E. Highfill...	Neeleyville.....	J. J. Norwine...	Poplar Bluff.
Callaway.....	C. C. Leeper...	Braymer.....	Tinsley Brown...	Hamilton.
Camden.....	D. H. Young.....	Fulton.....	J. F. Harrison...	Fulton.
Carroll.....	G. M. Moore.....	Linn Creek.....	G. T. Myers...	Macks Creek.
Carroll.....	W. C. Baird.....	Bogard.....	R. F. Cook.....	Carrollton.
Cass.....	R. D. Ramey.....	Garden City.....	J. S. Triplett...	Harrisonville.
Chariton.....	M. B. Austin.....	Brunswick.....	C. A. Jennings...	Salisbury.
Clark.....	H. W. Harris.....	Winchester.....	A. C. Bridges...	Kahoka.
Clay.....	L. J. Jones.....	Linden.....	F. H. Matthews...	Liberty.
Cole.....	R. E. Young.....	Jefferson City...	G. Ettmueller...	Jefferson City.
Cooper.....	J. D. Potts.....	Boonville.....	R. L. Evans.....	Boonville.
Crawford.....	W. A. Metcalf...	Steeleville.....	A. H. Horn.....	Steeleville.
Current River...	J. A. Chilton...	VanBuren.....	Frank Hyde.....	Eminence.
Daviess.....	W. N. Keener...	Jamesport.....	M. A. Smyth.....	Gallatin.
Grundy.....	J. A. Asher.....	Trenton.....	W. D. Fulkerson...	Trenton.
Henry.....	Jno. H. Britts...	Clinton.....	F. M. Douglas...	Clinton.
Holt.....	B. T. Quigley...	Mound City.....	J. F. Chandler...	Forest City.
Howard.....	A. W. Moore.....	Fayette.....	C. W. Watts.....	Fayette.
Howell.....	J. W. Bingham...	Pottersville.....	H. C. Shuttee...	West Plains.
Iron.....	W. R. Gay.....	Ironton.....	Ira A. Marshall...	Ironton.
Jackson.....	J. W. Kyger.....	Kansas City.....	E. L. Chambliss...	Kansas City.
Jasper.....	R. L. Neff.....	Joplin.....	J. D. Pifer.....	Joplin.
Johnson.....	M. P. Shy.....	Knobnoster.....	E. H. Gilbert...	Warrensburg.
John T. Hogden	T. H. Duckett...	Harrisonville...	T. C. Boulware...	Foster.
Laclede.....	J. M. Billings...	Lebanon.....	J. A. McComb...	Lebanon.
Linn.....	G. N. Lantz.....	Brookfield.....	D. F. Howard...	Brookfield.
Livingston...	R. Barney.....	Chillicothe.....	H. M. Grace.....	Chillicothe.
McDonald.....	E. F. Doty.....	Anderson.....	M. L. Sellers...	Anderson.
McDowell Dist.	John D. Seba...	Bland.....	J. W. Nieweg...	Owensville.
Macon.....	E. S. Smith.....	Macon.....	G. B. Rush.....	Macon.
Madison.....	G. W. Greenwood.	Fredericktown...	C. U. Davis.....	Fredericktown
Maries.....	O. C. Fritts.....	Lois.....	O. N. Schudde...	Vienna.
Marion.....	J. S. Howell...	Hannibal.....	F. Janet Reied...	Hannibal.
Mercer.....	H. P. Chesmore...	Princeton.....	C. R. Buren.....	Princeton.
Miller.....	S. P. Hickman...	Ulman.....	G. D. Walker...	Eldon.
Mississippi...	A. J. Martin.....	East Prairie...	W. P. Howle...	Charleston.
Moniteau.....	J. B. Stewart...	Clarksburg.....	W. B. Patterson...	Tipton.
Monroe.....	G. B. Dysart...	Paris.....	W. B. A. McNutt...	Monroe City.
Morgan.....	J. D. Hubbard...	Versailles.....	J. T. Beale.....	Versailles.
Nodaway.....	J. A. Larrabee...	Barnard.....	F. R. Anthony...	Maryville.
Newton.....	J. W. Lamson...	Neosho.....	Horace Bowers...	Neosho.
Pettis.....	W. C. Overstreet.	Sedalia.....	W. S. Shirk.....	Sedalia.
Phelps.....	W. H. Breuer...	St. James.....	S. L. Baysinger...	Rolla.
Platte.....	R. P. Davis.....	Woodruff.....	G. C. Coffey...	Platte City.
Putnam.....	C. H. Carryer...	Hartford, Mo...	T. A. Townsend...	Unionville.
Ralls.....	O. B. Hickley...	New London.....	J. D. Downing...	New London.
Randolph.....	D. A. Barnhart...	Huntsville.....	S. C. Adams.....	Huntsville.
Ray.....	Jas. W. Smith...	Richmond.....	C. B. Shotwell...	Richmond.
Reynolds.....	J. M. Lowery...	Centerville.....	T. W. Chilton...	Corridon.
Saline.....	D. C. Gore.....	Marshall.....	D. F. Bell.....	Marshall.
St. Clair.....	W. Cline.....	Appleton City...	E. D. Miles.....	Osceola.
St. Louis.....	B. M. Hypes...	2005 Victor St...	H. A. Hopkins...	Century Bldg.
St. Louis Co...	H. G. Wyer.....	Kirkwood.....	H. T. Randle...	Clayton.
Schuyler.....	J. T. Jones.....	Queen City.....	H. E. Gerwig...	Downing.
Scotland.....	W. E. Alexander.	Memphis.....	O. F. Pile.....	Memphis.
Shelby.....	Wm. Carson.....	Shelbyville.....	L. W. Dallas...	Hunnell.
Stoddard.....	D. R. Corbin...	Bloomfield.....	Jno. Ashley...	Bloomfield.
Sullivan.....	J. C. Kissinger...	Milan.....	G. S. Milnes...	Milan.
Washington...	J. A. Eaton.....	Belgrade.....	W. S. Smith...	Bellgrade.
Wayne.....	L. M. Pettit...	Greenville.....	I. N. Barnett...	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

COUNTY.	DATE OF MEETING.
Atchison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Semi-Monthly. First and Third Friday.
Butler	Monthly
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	Monthly. Second Tuesday.
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	Quarterly. First Mondays Feb., April, June, Aug., Oct., Dec.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper	Monthly. First Tuesday.
Crawford	Quarterly. First Tuesday. Apr., July, Oct., Jan.
Current River	Quarterly. August, November, February, May.
Davless	Monthly.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Monthly.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of Dec., Feb., Apr., June, Aug., Oct.
Iron	Monthly. First Saturday.
Jackson	Semi-Monthly. Second and Fourth Thursdays.
Jasper	Semi-Monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen	Quarterly. October, January, April, July.
Laclede	Semi-Annually. First Mondays May and November.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Semi-Annually. Fourth Thursday in Oct. and Apr.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Monthly.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Mercer	Monthly. Second Thursday.
Miller	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Newton	Monthly.
Nodaway	Monthly. Second Tuesday.
Pettis	Monthly.
Phelps	Quarterly. March, June, September, December.
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County	Monthly. Second Wednesday.
Schuyler	Semi-Monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	First Wednesday in March, June, Sept. and Dec.
Sullivan	Monthly.
Washington	
Wayne	Monthly.

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

AMERICAN MEDICAL ASSOCIATION

Next Annual Meeting at Portland, Oregon, July 11th to 14th, 1905.

President-Elect: LOUIS S. McMURTRY, Louisville, Ky.

President: JOHN H. MUSSER, Philadelphia, Pa.

First Vice-President: EDWARD JACKSON, Denver, Colo.

Second Vice-President: JAMES HALL BELL, San Antonio, Texas.

Third Vice-President: F. C. SHATTUCK, Boston, Mass.

Fourth Vice-President: B. C. PENNINGTON, Atlantic City, N. J.

Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Excelsior Springs, May 16, 17 and 18, 1905.

President: JABEZ N. JACKSON, Kansas City.

Vice-Presidents:

S. M. BROWN, Monroe City; H. W. LATHAM, Latham; T. M. POTTER, St. Joseph;
W. S. THOMPSON, Armstrong; J. C. ROGERS, Kansas City.

Secretary: C. M. NICHOLSON, St. Louis.

Assistant Secretary: E. J. GOODWIN, St. Louis.

Treasurer: J. FRANKLIN WELCH, Salisbury.

STANDING COMMITTEES.

Committee on Scientific Work:

C. M. NICHOLSON, Chairman; J. N. FRANKENBURGER and M. P. OVERHOLSER.

Publication Committee:

C. M. NICHOLSON, Chairman; C. LESTER HALL, WOODSON MOSS, ROBERT T. SLOAN, F. J. LUTZ, M. P. OVERHOLSER and L. A. TODD.

Committee on Public Policy and Legislation:

J. N. JACKSON, Chairman; C. M. NICHOLSON, HERMAN E. PEARSE, FRANK J. LUTZ and TINSLEY BROWN.

Committee on Medical Education:

C. M. JACKSON, FRANK HALL and T. C. WITHERSPOON.

Committee on Arrangements:

T. N. BOGART, Chairman; J. T. RICE, Secretary; I. J. JONES, F. H. MATTHEWS, J. M. ALLEN, J. H. ROTHWELL, GALVIN ATKINS, J. J. RICE, W. L. WYSONG and ERNEST LOWREY.

COUNCILLOR DISTRICTS AND LIST OF UNORGANIZED COUNTIES.

FIRST DISTRICT.—F. B. HILLER; Adair, Knox, Lewis.

SECOND DISTRICT.—J. B. BRUMMALL; solidly organized.

THIRD DISTRICT.—E. H. MILLER; Clinton, DeKalb, Gentry, Harrison, Worth.

FOURTH DISTRICT.—C. H. WALLACE; Andrew.

FIFTH DISTRICT.—L. W. DALLAS; solidly organized.

SIXTH DISTRICT.—WOODSON MOSS; Montgomery, Warren and Pike.

SEVENTH DISTRICT.—W. B. DORSETT; St. Charles, Lincoln.

EIGHTH DISTRICT.—F. J. LUTZ; Franklin, Gasconade.

NINTH DISTRICT.—B. M. HYPES; Cape Girardeau.

TENTH DISTRICT.—J. J. NORWINE; Scott, New Madrid, Bollinger, Dunklin, Center, Ripley, Jefferson, Francois.

ELEVENTH DISTRICT.—W. S. ALLEE; Osage.

TWELFTH DISTRICT.—R. D. HAIRE; Benton, Lafayette.

THIRTEENTH DISTRICT.—M. P. OVERHOLSER; solidly organized.

FOURTEENTH DISTRICT.—A. R. SNYDER; Berry, Lawrence, Dade, Barton, Cedar, Vernon.

FIFTEENTH DISTRICT.—Hickory, Stone, Taney, Greene, Christian, Dallas, Polk.

SIXTEENTH DISTRICT.—R. L. JOHNSON; Pulaski, Webster, Ozark, Dent, Texas, Wright, Douglas, Oregon.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

VOLUME I.

FEBRUARY.

NUMBER 8.

ORIGINAL ARTICLES.

PSYCHOLOGICAL THERAPEUTICS.

BY ERNEST H. SPOONER, M. S. P., M. D., St. Louis, Missouri.

This subject was not the first choice of the writer, but as the subject, "The Physician as a Reformer," was not deemed of sufficient strictly scientific interest by the programme committee, the writer, per force, selected the subject of "Suggestive or Psychological Therapeutics," as it is a more up-to-date subject and stands out alone and distinct from the common herd of subjects before us that have been hashed and rehashed from year to year at every convention.

I well know that this subject may not meet with much approval or favor from some, as anything claiming to cure by any other means than drugs or standard pharmaceutical preparations, is looked upon by the regular in derision, and anything claiming to influence disease through the mind as a fake, a delusion and quackery. There are lots of quacks making money.

We all practice psycho-physiologic therapeutics to a more or less extent, but some do it unconsciously and without any system. How much more powerful that influence would be if used scientifically. Psychological

therapeutics is curing, or aiding in the cure, of disease through the mind.

Every age has its wonders and distinctive epochs, as individuals their characteristics and idiosyncrasies; so each and every school of medicine or class of followers of Æsculapius and Hippocrates have their chief or distinguishing characteristics, or strong and weak points, some good and some otherwise. When the writer was asked some time since if he was a Republican or Democrat, he answered no, I am a physician and surgeon, and when asked what school, if allopath or homœopath, I answered that I was practicing the regular, but would go in any old path, even a mountain path, rather than not effect a cure. The physician should not be narrow-minded, but broad enough to change his opinion once in a while. The greatest philosopher is one who can see his mistakes and change his opinions occasionally. However, we should not accept new ideas as gospel truth too readily, but remember that, in science, as in fashion, "The same rule will hold; Alike fantastic, if too new or old; Be not the first by whom the

new are tried, Nor yet the last to lay the old aside." We must admit that there is a power in the mind or acknowledgment nothing. It is action of the mind that makes the world go, builds up character and the body, and if it is so powerful in commerce and muscular development, surely it must have a therapeutic quality or power over disease. In this paper I may not believe or advocate all the passages quoted, any more than a certain infidel orator believed all he said, nevertheless, I may be able to awaken an interest or enthusiasm, and get the views of the other members of the association and thereby arrive at the truth. I do not wish to be understood as favoring Christian Science, as it is neither Christian or scientific. Their reason is a fallacious philosophy, and their practices detrimental and disastrous in a great number of cases. It is neither fathered by science or mothered by Christianity, and it is but a branch of occultism and animal magnetism, and when they do cure it is generally a neuropath, and by auto-suggestion, not automobile. However, I am a Christian and hope to lay some claim to being scientific.

Medical fashion and fads change as do spring bonnets, and about the time we are getting pretty well acquainted with a drug or system along comes another, and sometimes better, to challenge our attention. The former can be instanced in the multitudinous German synthetic compounds with barbarous polysyllabic names, in the patent food stuffs and systems ad nauseam; and great medical works written and in only a very few cases a line or so on the value of the mental

factor in disease or therapeutics. What can be more fascinating or philosophical, or of the greatest scientific medical interest, than the study of that power or force which governs our body, viz., the brain or the conscious and sub-conscious mind that governs our voluntary and involuntary acts. The brain, that little collection of human essence, that organ that governs the world, through which all our actions spring, and from which all our nerve force, energies and dynamic forces emanate, is certainly a factor to be reckoned with. If we admit that "*Mens agitat molem*," mind moves matter, as we must, that it has a power especially through imagination to cause, or abet the cause of disease, then conversely we must acknowledge that it has a power to cure, or aid in the cure, of disease. We do not advocate psycho-therapeutics as some do a patent medicine, that it is a cure-all; but the more we study into it the greater is our belief that there is *something* in it, and if not a cure in itself, it is certainly an adjuvant, and there are a number of things that act as adjuvants to it, as, for instance, electricity properly applied, mechanical or medical means, or some externalizing influence is brought to bear or strengthen the impression on the mind, and this impression is made to a certain extent through the eye, "the window of the soul." The blind and deaf are not as easily influenced by suggestion as those who have good eyesight and hearing. The study of this subject naturally involves a study of the mind, a knowledge of the anatomy and physiology of the brain and powers of the mind with its multitudinous ramifications, and which

lead us into the field of psychotherapy, a much trodden field by the quack, charlatan, mystic, magnetic healer, ad nauseam. Suggestion and its results is an old subject, for it takes us back to ancient times, for did not Jacob know something of suggestion when he put ringed sticks before the cattle at time of conceiving so that Laban's flocks, which Jacob tended, brought forth ring streaked, and striped cattle, which were to be Jacob's? We may not understand this clearly, but there are laws for everything, as every effect has a cause, and there are a great many laws yet undiscovered, and a number, perhaps, that God will keep sacredly to Himself that man may never know. Before speaking of psycho-therapeutics in particular we wish to mention a few things in general leading up to it. Imagination is a great therapeutical agent and plays quite an important role in the cause and cure of our bodily ailments. Suggestive therapeutics is not hypnotism by any means, although a susceptibility to suggestion is exalted by the hypnotic state. Every case is a law unto itself. Suggestion works much better on some than others, and after a little practice you can pick your cases. It is claimed that there is no disease known to humanity but what can be benefitted and a great many cured, especially the psycho-neuropathological cases, by its employment.

Had we time we would quote largely from Dr. Bernheim, of Berlin, a peer on the subject; also from the book entitled "Force of Mind," by Dr. Schofield, of London, England, but fifteen to twenty minutes will not allow of this so must be content with a

few quotations. Schofield says: "Is it not extraordinary what value the public attach to such a trivial matter as 'cure;' yet how utterly incapable they seem of grasping the importance of diagnosis?" "Can it be that the 'bold quack' wields some power called 'mere force of assertion' that the physician does not understand or does not condescend to use? Does the virtue lie in the 'boldness of the quack,' in the 'force of the assertion,' or in both? In both, probably; and I personally may assert, with some force, that their acknowledged value by such a man as Sir James Paget, proves that in his opinion the mental factor cannot only cause, but cure disease, and that it can be made available by 'force and boldness,' but the latter are such intangible, such unorthodox drugs." That mind and body are in some way connected was known long before the Greeks associated the mental state with the physical cause, by inventing the term melancholy (black bile). It is, indeed, only within the last century that the practice of medicine has been severed from its connection with archiacs, black art, witchcraft, astrology, phrenology, quackery and knavery of all kinds; most of these being more or less psychical in their nature. The medical man of the present day values too much his freedom from the errors and mysteries of mediæval medicine. He knows too well what his profession owes to the inductive methods of diagnosis, to the exact observation aided by modern instruments of precision, to the advances in physiology, pathology and bacteriology, to be over anxious to turn aside to the study of the interaction of the physic with the psychic. Med-

ical colleges of the present day teach very completely everything pertaining to the human body and its care, but very little concerning the mind or soul and its power over disease, thus the omnipresent mental factor is almost universally ignored. One of the best ways to contract disease is to be afraid of it. Physicians and nurses do not contract disease, because they are not afraid of disease.

If we would be all-round men we must study everything. All over the world we find irregular regulars, who are not altogether bound by the traditions of schools. Dr. S. Weir Mitchell, of Philadelphia, tells of, "Our best have owned the rare dramatic power which gives to sympathy its lifting hour; Go learn of them, the masters of our art, To trust that wise consultant called the heart. There are among us those who haply please To think our business is to treat disease, And all unknowingly lack this lesson still, 'Tis not the body, but the man is ill."

The material is vitalized by Plato when he says: "The good soul (or mind) improves the body." *Mens sana in corpore sano*, a sound mind in a sound or healthy body. Professor Calderwood, when he says: "Mind and body form a unity of life. Mind so acts on body that the body performs only a limited range of its functions without intelligent direction. The unity is that of a rational life, manifesting itself in a rationally directed physical life." Herbert Spencer, speaking of some who fear that mind may possibly be interpreted in terms of matter, says: "There is not the remotest possibility of so interpreting it. We may regard the brain as the principal seat of the mind, al-

though by no means its exclusive sphere, which, indeed, extends throughout the entire organism." Aristotle regarded the heart as the seat of the soul, and the brain as an inert, bloodless body, used to cool the heart. Bernheim quotes Pierre Ponponazzi, of Milan, in the following words: "We can easily conceive the marvellous effect which confidence and imagination can produce, particularly when both qualities are reciprocal between the subjects and the person who influences them. The cures attributed to certain relics are an effort of the imagination and confidence. Quacks and philosophers know that if the bones of any skeleton were put in the place of the saints' bones, the sick would none the less experience beneficial effects, if they believed they were near veritable relics." A number of strong and interesting quotations could be made from such men as Paracelsus, Sir J. Crichton Browne, Dr. Hack Tuke, Dr. Laycock, Dr. Bernheim, Dr. Benj. Rush, Kraft-Ebbing, etc., concerning the power of the mind over the body. Prof. Gairdner, president of the British Medical Association, says: "We must acknowledge the spiritual element in man is brought necessarily into the sphere of the physician's daily work." De Fleury says: "The modern doctor must understand the pathology and hygiene of the intellect. There can be no doubt that the fields of psycho-physiology, psychopathology and psycho-therapeutics are as yet almost untouched." The study of the mind is now mainly relegated to the philosopher, the preacher, and the alienist; but a sound specialism, after all, can only be built on a solid and broad generalization. Phi-

losophers and ministers, however, are students of the mind and soul, and the alienist of the diseased mind; what we need is physicians trained in the knowledge of mind and body, and who thus would prove better specialists than any of the three. Physique, dress, carriage and general appearance are great adjuncts to a physician's success, but they are not to be compared with mind and character. But if a favorable impression is made on the patient's mind at first meeting, the patient's faith and confidence will be the more readily established. Dr. Schofield says: "As the action of the mental factor in disease is unconscious, it cannot be recognized as mental by those who limit mind to consciousness. The word 'mind' must, therefore, be extended to include all psychic action." Speaking of mind it is even evident below the amoeba and protozoa; the choice of action is found in the arcellae and volition, appetite and passion, in the amoebae and rotifers. "If we let our gaze travel beyond the creatures that are possessed of a glimmer of intelligence and consciousness," says Maeterlink, "beyond protozoa even, which are the first nebulous representatives of the dawning animal kingdom we find, as has been abundantly proved by experiments of H. J. Carter, celebrated microscopist, that the very lowest of embryos, such as the myxomycetes, manifest a will, desire and preferences; and that infusoria, which, apparently, have no organism whatever, give evidence of a certain cunning. The amoebae, for instance, will patiently lie in wait for the new born acinetes as they leave the maternal ovary,

being aware that these must as yet be lacking their poisonous tentacles."

Psycho or suggestive therapeutics can play an important part in the following diseases: psychopathia sexualis, on which we will not have time to dwell, though a very interesting subject, Sadism, masochism, fetichism, homo-sexuality, sexual inversion, sexual perversion, antipathic sexual instinct, satyriasis, nymphomania, hysteria, melancholia, paranoia, spinal neuroses and epilepsy, etc. A strong will is a good therapeutic agent. We have probably all seen cases that would have been victorious over their disease had they been possessed of a stronger will-power and sympathetic nervous system, and a healthier sub-mentality. Sympathy also plays an important role in the cure of disease. Sometimes a little sympathy and philosophy in the way of a clear explanation to a patient concerning his trouble or diseased imagination, will accomplish more than salves, lotions and pills, and the patient's pains will drift away or vanish like the morning mist before the rising king of day. We can calm the mind in excitement. I remember being in a church one Sunday afternoon when a severe storm came up suddenly; it blew out a window-light, which frightened the children and some of the older ones considerably, and there was almost a stampede; but I went to the piano and played "There Is Sunshine in My Soul," and order was soon restored. We can arouse feelings of joy and hope that spring eternal in the human breast; and faith, without which much would be in vain; and

love, that greatest tie of the human soul. We can ameliorate a patient's condition by directing his thoughts from his malady, and in many other ways. Philanthropy, ambition, indifference, patience, altruism, common sense, neglect, religion, and sympathy—all are, at times, good mental medicines. The illegible prescription, the doctor himself, his office, and especially his fee, if impressive, are all therapeutical agents of much value. The *vis medicatrix nature* is said to be the unconscious mind. We have read of cases where medicines have worked the reverse way because the patient did not understand the doctor. Though nearly all drugs have a psychic action, certain drugs triumphantly assert their physical powers in spite of latter-day skepticism. No mind force is on a par for certainty of action with mag. sulph., pulv. jalap, oil tigllii or apomorphia. A case was cured of organic heart trouble by losing her reason.

Anæsthesia is common with melancholias, hyperæsthesia with neurotics. Insensibility and pain are common in mental disease. Soldiers in victory remain practically insensible to cold and thirst at the beginning of a battle, and scarcely feel any pain in the wound until after the battle is over. Toothache ceases in the dentist's room, and pain goes when the doctor comes. Physicians and others can produce sickness without knowing it, by pessimistic prophecies, by anxious looks or words. So disease may be unconsciously suggested by the physician. We could all cite, no doubt, some peculiar and interesting cases, and some who have gotten

well much quicker than we expected. "A hopeless epileptic never had a fit after seeing his daughter burn to death." However, the writer would not recommend this as a regular treatment for epileptics. A doctor was called to see a lady suffering from a severe attack of rheumatism, and he extemporized a steam bath by means of a kettle and a pipe; the water boiled over and scalded her, and she said: "Oh! doctor, you have scalded me," and leaped out of bed.

Tuke says that "Mental therapeutics without hypnotism can cure toothache, sciatica, painful joints, rheumatism, gout, pleurodynia, colic, epilepsy, pertussis, contracted limbs, paralysis, headache, neuralgia, warts, scurvy, dropsy, intermittent fever, alcoholism, typhoid fever, and even impending death." Mental treatment is very beneficial in gynæcology. A boy had warts cured by placing his hand in blue water. A man defrauded his brother, and came to the doctor for anorexia, dyspepsia and debility. The doctor discovered the mental factor, made him repay his brother, and the case was cured. A great many more cases could be mentioned, but we have not the time now. You may say some of these cases of cure or apparent cure by suggestion are coincidences, but could we not say that of a good many other things also? In conclusion, some claim that the study of psychological therapeutics should be in the college curriculum and then we may have able workers in this line.

The physician should be cheerful; a smile costs no more than a frown, and a kind word or action may sow the seed of an enduring blessing; and

remember what the wisest man tells us in the Bible: "A merry heart doeth good like a medicine, but a broken spirit drieth the bones." We can teach, preach, live and suggest good suggestions from a good, healthy mind to those around us, especially the young, in the way of purity of action and character as well as purity of drugs; and if these suggestions are good and strong, they will bring a rich reward. If you tell a child it is bad, it may be so impressed that way that it will grow up thus; tell it it is good, and it will have something to live for. Sometimes the rules and regulations posted in a school room will remind the children of things they would otherwise never have thought of. By good, healthy suggestions our patients may get well quicker, and we may not have quite so much money off each case, but we

will get more cases, and what we lose here we will reap in heaven—those of us who get there. A suggestion from the family physician will sometimes go further with a child than a whipping from its parents.

As physicians and members of such a noble calling, we should be willing to tread in any path provided it is the path of truth, justice and mercy; and if by delving into the depths of earth, through rocks and clay, or climbing up the steep and rugged mountain side, through flint rock and piercing thorns, we can be of the most good to our fellow-beings, it were better than to go by the level valley, through flower-covered fields or shady dell. In closing, I would suggest that from now on we use our minds in the right direction more than we have in the past, and great good will have been accomplished.

A REPORT OF THE STATE BACTERIOLOGIST TO THE MISSOURI STATE BOARD OF HEALTH UPON AN EPIDEMIC AT WIEN, CHARITON COUNTY, MISSOURI.

BY A. J. DETWEILER, M. D., Columbia, Missouri.

An epidemic of rather severe proportions broke out in and around Wien, Chariton County, during the past August and continued during September. We were not informed of its existence until there had been quite a number of deaths. Wien is a small village of six or seven houses surrounded by a productive and thrifty German Catholic community. The area involves about eight miles square.

During these two months Drs. W. J. Billeter and C. O. West reported 126 cases with twenty-two deaths.

A few other cases occurred within this community, but are not included in this report.

The following description of the last case treated by Dr. W. J. Billeter is fairly typical. The patient had not recovered when the description was written up: "James McSparren, aged seventeen months, male, white. Began with diarrhoea on September 6th. Had several watery stools on first day and more on the second day. I saw him September 8th or third day of the disease. Pulse, 110; respiration, 25; temperature, 101½° F.

Tongue slight yellow coating. Bowels moving quite often, sometimes thin and watery; at other times containing only mucus and blood. Number of stools in the first twenty-four hours, twenty-four or more. Pain before evacuation well marked, child often crying just before bowel movements. No nausea or vomiting at first. The following shows the number of evacuations for each day since I first saw him—

September..	8	9	10	11	12	13
Dejections...	—	—	—	—	—	—
September..	14	15	16	17	18	19
Dejections...	—	—	—	—	—	—
September..	13	14	14	15	20	16
September.....				20	21	22
Dejections.....				—	—	—
Dejections.....				11	13	8

Mucus and blood were never entirely absent from the stools. No tympanites at any time. More or less nausea for several days now, more marked just before his bowels move. Temperature has never been above 102° F., but has been ranging from normal to 100½° most of the time. Pulse ranges from 100 to 120.

Treatment.—Calomel, 1-10 gr. every hour for eight or ten doses, first day. Elix. lactopeptine in teaspoonful doses, combined with bismuth subnitrate in 10 gr. doses, every

three hours; also syrup rhei every three or four hours, second day. On the morning of third day, September 10th, at 9 A. M., gave 10 c.c. of antidyenteric serum; again another 10 c.c. at 9 P. M. same day. Also have used rectal and colon irrigations of normal salt solutions almost every day. Have used as intestinal antiseptics salol, sulph. carbol. zinc, acetozone. For pain and tenesmus used Dover's powders, and starch and tinct. opii following irrigations. Gave also an occasional dose of ol. ricini, with four or five drops of turpentine. In former cases used both mineral and vegetable astringents, but never seemed to get the results desired.

Diet.—Egg albumen, broths, boiled milk with lime water, egg-nog, etc."

In some of these cases the stools became as frequent as two hundred in twenty-four hours. The temperature was not high in any case; in some it was subnormal. The patients all had a more or less apathetic appearance. One case developed a marked jaundice before death. Three children developed such nervous symptoms as opisthotonos, narrowed pupils, coma, etc.

Dr. Billeter gave a partial list of the number affected in each family, their ages and ages of those who died:

Names.	Number in Family.	Cases in Family.	Ages.	Deaths.	Ages at Death.
Cortes	7	3	2, 7, 14	1	2
Abrahams.....	8	7	50, 43, 18, 15, 12 8, 10	2	12, 8
Venneman.....	5	1	19	.....	.....
Bagley	4	1	13	.....	.....
Bange	6	1	13	.....	.....
Kahs.....	6	4	12, 8, 6, 11 months	1	11 months
Bixemans.....	8	6	.....	.....	.....
Kemphaus.....	6	3	4, 8, 14 months.	1	14 months
Steffes	8	8	.....	.....	.....
Nellesen	6	5	17, 10, 8, 3, 60	.....	.....
Allbenasius.....	7	3	2, 4, 6	.....	.....
Rogers.....	5	2	60, 3 months	1	3 months
Heltzs	7	1	3 months	.....	.....
Hanngessier.....	4	2	21, 63	.....	.....
Biegel.....	3	1	65	.....	.....
Huber	7	3	3, 8, 10	.....	.....
Stevens.....	6	3	20, 24, 60	.....	.....
Niemeier	4	3	27, 3, 14 months	1	3
Bauer.....	7	4	50, 11, 3, 8 months	2	3, 8 months
Bangs	9	5	6 weeks, 13	1	13
Hingle	6	4	2, 17, 13, 55	.....	.....
.....	.....	4	.....	1	8 months

Four of these cases were treated part of the time by other physicians.

Dr. C. O. West reported fifty-two cases with eleven deaths. He gave the ages of forty-four in this proportion: Thirteen were above eighteen years of age, thirty-one under eighteen years. Since reporting the forty-four cases he had eight more cases, of which two died, the ages not being reported. Among the above forty-four cases three deaths occurred in the fifteenth year, the remainder being younger.

The total death rate was a little above 17 per cent. However, since none above fifteen years died, we find that the death rate was very high among children. Thus eliminating

the last eight cases and two deaths reported by Dr. West, because he did not state the ages, we find that the death rate under eighteen years was about 29 per cent.

I visited the locality at two different times towards the latter part of the epidemic. On each occasion I could remain only one day. Upon each visit I collected a few stools and drops of blood from typical cases. The stools were placed in bottles sterilized by dry heat. The drops of blood were taken from the lobe of the ear and allowed to dry on sized paper. Samples for the bottles were taken only from bloody mucous stools passed during my visit.

Since the symptoms were very simi-

lar to those described in the attacks of dysentery, in which cases Shiga succeeded in isolating a typical bacterium which he demonstrated was the cause of the disease, which was subsequently corroborated by Flexner in the Philippines, as well as others in Europe and America, I was impelled in a small way to search for such an organism in the patients suffering from this epidemic at Wien. I selected a small particle from each of the stools with which three agar-agar plates were made in each case. The agar plates were placed in an incubator for forty-eight hours, after which stab cultures into glucose litmus agar were made from certain colonies. At the same time for comparison agar plates were made with a culture of Shiga bacillus kindly sent to me by Dr. Bergey of the University of Pennsylvania. After having studied these colonies and descriptions of the Shiga bacillus, I stabbed those colonies most closely corresponding to colonies of Shiga's bacillus. Since the different members of the dysentery group do not ferment glucose media, at least not abundantly, I discarded all those cultures which fermented glucose abundantly. Those which fermented glucose probably were members of the colon or proteus groups. Thus from six stools I made thirty-seven cultures. Of the thirty-seven cultures made, only five did not ferment glucose. These five cultures were all obtained from one case, a boy seventeen years old, sick four days when the stool was passed. He recovered in six days. These bacteria were rod-shaped and about the size and shape of the typhoid bacillus. When grown on agar they were not motile, but

were motile when grown in beef tea. They stain easily with aniline dyes, but not with Gram's stain. They did not coagulate milk, nor liquify gelatine. No indol was produced in fourteen days. In beef tea a heavy cloud was formed, no surface scum and little deposit. On agar slant a thin white glistening translucent growth was produced. Agar colonies, which at first were white and translucent later became slightly brownish. The colonies were round, flat and finely granular, the granules being coarser toward the center. While similar in many characteristics to the Shiga bacillus, this germ did not seem to be pathogenic or toxicogenic for guinea pigs. One cubic centimetre of a beef tea culture incubated at 39° C. for twenty-four hours was injected into each of four guinea pigs, weighing about 250 grams. Two of them received the injections intraperitoneally, and two subcutaneously. None of the guinea pigs seemed to suffer any ill results from the inoculations. Moreover, this bacterium was not agglutinated by blood in dilutions of 1-10 from the patient which had passed that stool nor by the blood of five other patients in later stages of the disease or having recovered from it. A dysenteric antitoxine, which was claimed to be produced by means of several different varieties of dysentery bacilli, did not agglutinate this bacterium in dilutions of even 1-10.

The Shiga bacilli mentioned above were almost immediately agglutinated by this dysenteric antitoxine in dilutions of 1-10. Blood from some of these patients was tested upon this Shiga bacillus. For this purpose blood was selected from a boy sick

ten days; a girl three years old sick fourteen days; a girl seven years old sick twenty-four days, and a girl ten years old convalescent for ten days. In none of these tests was the Shiga bacillus agglutinated in the least by dilutions 1-10 in four hours.

The epidemic continued for about eight weeks. We could not discover the method of transmission, although we suspected that it was carried from house to house by visitors. In many cases, however, members of the families declared they had not visited any families suffering from the disease. Children did not attend church after the epidemic broke out, and very few adults. The funerals of the dead were not attended by children, and were more or less private. We insisted that visiting of the sick should be stopped as much as possible. Flies were very abundant at this time. Judging from what I observed in some families of six or eight members crowded into small houses of three or four rooms, there were abundant opportunities at times for the disease to be transmitted through the family by these pests. The kitchen was in many cases adjoining the sick room without even a screen door separating them. However, many of the houses were a mile or more apart. Flies could hardly have carried the infectious agent this far.

The afflicted families were told to immediately disinfect the stools with carbolic acid or chloride of lime and then bury them. This was not carried out at first, and no doubt carelessly at all times.

Judging from a hurried inspection of the locality, and as a result of the attending physicians' information, I

was led to believe that those families which followed ordinary hygienic laws of eating and drinking were not affected.

Although this was undoubtedly a form of dysentery similar to that found elsewhere and caused by some member of the Shiga-Kruse group, I was unable to demonstrate such in the few cases which I investigated in this epidemic. Moreover, blood from these patients did not agglutinate Shiga bacilli, which should have been the case were the Shiga bacillus or members of the same group etiological factors in these cases.

Some bacteriologist at different times have suspected that members of the colon or proteus groups of bacteria may under certain conditions of climate and unsanitary conditions of living become virulent and thus cause cholera-infantum and dysentery. There is this possibility in an epidemic like this, where one cannot find members of the Shiga-Kruse group, nor get agglutinations of these germs by means of the patients' blood. However, this side of the epidemic was not investigated, owing to the limited facilities at my disposal.

Undoubtedly the disease was caused by a highly infective organism which was probably in the stools of the sick and which may remain for quite a length of time after recovery. For this reason we advised the people at Wien to disinfect the public privy vaults by emptying several barrels of lime into them at different intervals this fall. We have also advised them to guard against contamination of their drinking water. However, since sanitary regulations cannot be, or rather are not, thoroughly carried out

in a farming community, there is a possibility that this same disease may break out again next year. Should

this unfortunately occur, we hope to be in a better position both for investigation and assistance to the people

LEUKEMIA.

BY M. P. OVERHOLSER, M. D., Harrisonville, Missouri.

Leukemia is a disease of the blood-making organs. "It is characterized by a great and persistent increase of the white blood corpuscles, by a diminished number of the red blood corpuscles, by a lessened amount of hæmoglobin, and by changes in the spleen, lymphatic glands and medulla of the bone. The onset of this disease is often insidious, and, as a rule, the patient seeks advice of a physician for enlarged lymphatic glands, pallor, shortness of breath or other symptoms of anemia, or for a progressive enlargement of the abdomen, or for hemorrhages from various parts of the body." Epistaxis, hæmatemesis, hemoptysis, hæmaturia, hemorrhagic gingivitis, pupura hemorrhagica, numerous and large subcutaneous hemorrhages, are all common symptoms of this disease. Osler reports a case where a boy was able to play at ball two days before the onset of a final hæmatemesis; also the case of a young girl supposed to be suffering from a slight chlorosis, but who died of fatal hemorrhage from the stomach before any suspicion had been aroused as to the true condition of the patient. The cervical, supra clavicular, axillary, mesenteric and inguinal glands may be much enlarged, and the glands are usually soft, isolated and movable. The spleen and liver, in a great majority of cases are also enlarged. In one case de-

scribed by Welch, the liver weighed thirteen pounds. There are three distinct varieties of this disease: Chronic myelogenous leukemia, chronic lymphatic leukemia, and acute lymphatic leukemia.

The clinical symptoms of these types of leukemia may differ in a number of respects. However, a positive diagnosis can only be made by a microscopical examination of properly fixed and properly stained blood specimens. A microscopical examination of blood in these cases is of paramount importance, for by its means alone are we able to differentiate the lymphatic type of this disease from Hodgkin's disease, syphilitic or tubercular adenitis and sarcoma of the lymph glands; or the spleno-myelogenous type from malignant growths of the spleen, and enlarged spleen due to malaria or syphilis.

In all varieties of leukemia the increase of the number of the white corpuscles is an essential factor. The blood picture in the two chronic types of leukemia is, however, absolutely different. In the chronic lymphatic leukemia we have an enormous increase in the number of the small non-granular mononuclear leucocytes which are also frequently called lymphocytes. Lymphatic leukemia is, therefore, a leucocytosis of the small mononuclear variety of leucocytes. This leucocytosis differs from the in-

flammatory leucocytosis, in which we find an increase of the polynuclear leucocytes, which are also frequently called the neutrophilic granular leucocytes. In normal blood there are usually about fifteen hundred, or not to exceed twenty-five hundred, of the small mononuclear, non-granular leucocytes to the cubic millimeter of blood. In lymphatic leukemia these corpuscles may be increased to four hundred thousand, or five hundred thousand, and some cases are reported where they have reached the enormous number of over one million to the cubic millimeter of blood. In most all of these cases grave anemia is also found. The red blood corpuscles may be reduced to two million or as low as one million, or even less, and the percentage of hæmoglobin may fall as low, or even lower, than 20 per cent.

In this type of leukemia we find very few, if any, of the abnormal granular leucocytes known as the myelocytes, and also very few, if any, of the nucleated red blood corpuscles known as the normoblasts or megablasts.

In the myelogenous type of leukemia a stained specimen of blood gives us an entirely different picture. Here we find great numbers of large, abnormal, granular leucocytes called myelocytes. These myelocytes may be as numerous in this form of leukemia as the lymphocytes are in the lymphatic variety of leukemia. The myelocytes are large, mononuclear leucocytes, and contain large granules in their protoplasm which surround the nucleus. The granules found in most of these myelocytes are neutrophilic in their staining properties

and stain purple with Erlich's tri-acid stain. It is, therefore, the mononuclear neutrophilic myelocyte which is found in such large numbers in the spleno-myelogenous type of leukemia. The granules of some of the myelocytes, however, may take the acid stain in preference to the neutral stain and are, therefore, stained a deep red. The myelocytes, whose granules are stained red by an acid stain, are called eosinophilic myelocytes. These myelocytes are much less numerous than the neutrophilic variety in the chronic myelogenous variety of leukemia. Grave anemia is also a marked symptom in this type also, and it is in this form of leukemia where we usually find normoblasts and megablasts in goodly numbers.

It is found that the medulla of the bone is one of the primary and chief seats of disease in spleno-myelogenous leukemia, while it is the lymphatic structures of the body in the lymphatic type of leukemia which are found to bear the chief brunt of the disease. A number of interesting and typical cases of leukemia have been recently reported. Gilbert and Weil report three cases of acute leukemia. In one case death occurred in seven weeks. In the second case in one month, and in the third case in fifteen days. McCrea reports a case of lymphatic leukemia in which death occurred in eleven days after the appearance of the onset of the symptoms.

Leukemia may occur at all periods of life, from earliest infancy to advanced years.

Most of the cases of acute lymphatic leukemia occur between the ages of eleven and twenty-four years.

The specific cause of this disease has not been satisfactorily determined. Various infectious diseases have been recorded as determining the occurrence of leukemia. In one hundred and fifty cases studied in this connection by Gowers, thirty gave a history of previous malaria, while in the cases under Osler's observation malaria has been present in one-third of his cases. Syphilis seems, at times, to play a part in its causation, especially the hereditary form in children. Typhoid fever was reported by Immerman as a determining cause in a case of myelogenous leukemia. Recently, Litten and Frankel and others have called the attention of the profession to influenza as a cause of leukemia. Pregnancy, lactation and menstruation seem to exercise a certain influence in the development of the disease. An

etiological relation is also traced to rickets and tuberculosis. While the specific cause is not definitely settled, there are many features in this disease which make it probable that it is essentially infectious in its nature. However, if this be the case we have not yet been able to isolate the particular micro-organism producing it.

The prognosis of these cases is always very grave. Very few cases get well. The lymphatic type seems to be more malignant than the spleno-medullary type, especially the acute lymphatic form, which may produce death in a few weeks.

The treatment so far has been very unsatisfactory. A few cures of the spleno-myelogenous variety are recently reported by exposing the patient to the x-rays, the treatment being kept up for some weeks.

CONSUMPTION AND ITS CORRECT TREATMENT.

BY C. WALKER WATTS, M. D.

Secretary and Treasurer H. C. Med. Assoc. and V. P. of Missouri for Jeff. Med. Alumni Assoc., Fayette, Missouri.

Tell me, ye winged winds that round
my pathway roar;

Tell me, oh, please tell me, some
loved spot

Where tuberculosis is felt and feared
no more.

The answer comes to this plea:

'Tis not found on this sun-bright
shore—

In our Father's garden—where flowers
bloom and blossom

Untouched by this tuberculosis
blight forever more.

A writer who truly expresses the importance of this subject has given us these words, which every humanitarian will appreciate:

"Five things a man must learn to do,
If he would make his record true:
To think without confusion clearly,
To love his fellow man sincerely,
To act from honest motives purely,
To trust in God and Heaven securely,
To treat his patients tenderly."

We approach this subject with awe
and reverence, and we trust with due

regard and respect and esteem for all those who in the past or present centuries have devoted their time, talent and means to the personal investigation of the subject, and their name is almost legion, and with no patience or respect for those who have added confusion and chaos to hearsay evidence, and not a single original idea to produce.

We have only time or space to mention a few of the most prominent men of our profession who have added their part in its elucidation. Europe and America have joined hands and have each vied with the other in its thorough study and investigation. Their names stand out in bold relief on the tablet of fame as worthy of a place among the true heroes of earth, and the victims of consumption will crown their brows with laurels of undying fame. The list we give only furnishes those most prominent. Dr. Koch, of Europe, justly heads the list, as his efforts in Europe have stood the test of the closest scrutiny, and the more we study his great work, the more we love, respect and esteem him and value his original research. Among his collaborators we mention Drs. Widrow, Koenig, Schueller, Von Moesetig, Moorhof, Paul Remoud and Christian Enger, and Prof. Ronx, of Paris. America has her immortal and illustrious Prof. N. Senn, Drs. Knopf, Osler, N. S. Davis and the late Bryson, of our city of St. Louis. Koch and Senn are household words in the home of every surgeon and physician of this day and age, on account of their untiring and ceaseless work in the great field of tuberculosis, while Osler and Bryson have given us great help.

Where is there a family of human beings, bipeds or quadrupeds, animal or vegetable, that has not or does not suffer from the ravages of consumption, which is not cursed or crushed by its fearful blight.

Consumption.—What is it? Where did it come from? Where will it cease? Is it curable?

It is a lesion dependent upon the presence of a specific germ for its origin, a diseased condition produced by a specific bacillus, a process known as tuberculosis; scrofulosis, her twin sister, which, as Prof. Seen justly terms, "a mystic term," differing only in location from tuberculosis.

Consumption, a wasting of tissue due to tubercular processes.

Histology.—It is perhaps the oldest disease in the world. The *Book of Books*, the Bible, gives a graphic account of it in the Old and New Testament Scriptures. Read the Books of Leviticus and Isaiah, and the account of it by Dr. St. Luke of the New Testament Scriptures.

It originated, not in the garden of Eden, but very soon thereafter. The lesser and greater prophets describe it with the pen of fire, and tell of the kings and of people who died of it, among whom they mention King Asa, who died of tuberculosis of the lower extremities. Dr. St. Luke, the beloved physician, who followed the wonderful physician, Jesus, who healed the wasted woman who was dying from uterine tuberculosis. The prophet who cried out: "Is there no balm in Gilead? Is there no physician there? Why then is not the health of the daughter of my people recovered?"

It originated almost with creation, and has grown and increased among

men and the lower animals from the first to present century, until its victims are found almost among all races and in every clime of the habitable globe. It has been the theme of more poets and prose writers, of all ancient and modern history, and it has and will continue to employ the best and purest minds of the world in its study and investigation. Its martyrs are not alone among its own victims, but many of our noble profession and trained nurses have given their lives in the pursuit of knowledge and to relieve those affected. One of them, in 1868, said to the writer, when dying from a fearful hemorrhage: "Doctor, I will not live to see the *discovery*, but it will come, I feel it, that consumption will be known, understood and cured." His prophecy, thank God, is being fulfilled forty-four years after. "This germ that is killing me can be killed," were the words of Surgeon F. B. Flore in 1868.

In 1856, by the bedside of one of earth's fairest flowers, we took our first lessons in the clinical study of tuberculosis, as it developed in the person of one whom we expected to lead to the altar, as our life companion. Her photograph graces the desk of our study-room now—under the instruction of Drs. J. J. W. and I. P. V., physician and surgeon—Missouri's best of their day. In 1858 she died of pulmonary tuberculosis. We took a solemn vow at the bedside to make her disease our life study, and, by the help of Almighty God, we have. In 1865 our sister passed away with it, in her young womanhood, nipped by tuberculosis' untimely frost, parched by the fever's hectic

ray, she yielded her young life to this unfeeling monster's sway.

In 1882 we had our first pulmonary hemorrhage, in 1894 our last, from the genito-urinary system, and yet we live and *study* tuberculosis. Here would we return thanks for the kindness and help of Professors S. D. Gross, J. Solis Cohen and DaCosta to us in 1866, '7, '8 and '9 and '72, and since then, for Prof. Senn's yearly help. And we owe to these men a debt of gratitude that demands public acknowledgment in our devotion to humanity and duty. In 1867 we were purely, thoroughly and sincerely converted by pathological, macroscopical and microscopical analysis to the germ theory. We have the tubercle obtained then, now in our office. In 1893, the patient from whom we procured it, passed away with tuberculosis of colon and rectum. In 1896 we removed the lower segment of his oldest daughter's rectum for tuberculosis, and she is now, in 1904, apparently well. It affects all races and people.

Morbid Anatomy.—These rods or spores and the stroma in which they are found, have been found in every tissue, fiber, vessel, gland, organ, viscera and membrane of the human body, I believe, excepting the pineal gland, both in the solids and fluids. None are exempt from its invasion. While they may prefer and select the pulmonary tissue, they are, as in scrofulosis, found revelling and playing hide and seek in the joints, glands, and membranes of the brain. We have not time to give special reference to localities or regions, as the profession is well versed in all these.

Forms.—We mention only a few—tubercular meningitis, phthisis pul-

monalis and general tuberculosis of alimentary tract, joints, and wherever there is a muco-serous and synovial membrane, these seem to be the *prima via* of tuberculosis.

Consumption but expresses the *fearful* effects of these tubercles on the entire animal economy.

The great M—— said truly: "It is the accumulation of our experiences that makes our empirical knowledge, at least scientific fact." I prefer the word clinical to empirical, unless we confine its meaning to real scientific and practical research. Thank God we hope to chronicle the death of pseudo empiricism and pseudo empiricists during the twentieth century. It is but the chill of ignorance, culpable and crude superstition of the lowest order.

Pseudo Tuberculosis.—We know not if there be any such thing from experience; we deny not the existence of streptothrix hominis, any more than we do that of streptothrix actinomyces. Of such this deponent has no personal experience. It may in the future become under the lens, among the echinococcus celebrity, and thereby populistic. We have only at present *two hundred and four* specimens of the tuberculosis family in our collection of forty-four years. They all belong to the same tuberculosis family. Their morphological character shows the pedigree as plain as the name on the slide. The student can read the facts. Variation in forms and effects depend only in geographical as well as topographical regions affected—all due to the tubercular nodule or germ, as discovered by the earliest and latest writers.

Symptoms.—Gastric, gastro enteric

and pulmonic, cough, fever and expectoration, with transpiration—all characteristic of their presence in the body somewhere. As fever in typhoid enteric trouble but indicates the presence of the typhoid bacilli in Pyer's patches and the glands of Lieberkuhn, as well as in the parotid or *a segnel*, but express the stage of irritation, congestion, inflammation, ulceration and perforation, equally so and along the same lines do we follow the symptoms of tuberculosis. In typhoid fever we have the dusky, red spot on each malar bone or one, so does the pneumococcus evidence its presence on the cheek of the pneumonic—so does the increased temperature and hectic fever speak out and tell us of the bacillus tuberculosis in form of pulmonary consumption or tuberculosis enterica; or in the hip, knee or ankle joint speak out of the bacillus tubercles. Early indigestion, dislike to certain foods, early and late cough, sputa excretions and transpirations tell in no uncertain symptoms the presence of the almost universal scourge of the human race. Emaciation, loss of all adipose tissue and the hollow cheeks and *cadaveric* odor speak in sepulchral tones often of his awful presence.

Modes of Invasion.—Infection, hereditary, transmission by coitus, by semen, ovum, blood placenta, *infection* by inoculation, inhalation and inspiration, *invasion* by cohabitation, sputa and excretion, traumatic. We cannot believe fully with Cornet, "The consumptive in himself is almost or altogether harmless or harmful by bad habits." We endorse fully as to the contagiousness and infectiousness of the virus in any

form. The experience of fifty years doth teach us, too, that in eternal vigilance (and of constant watchfulness and care) is the price of success, always acting by watching any avenue of invasion and being *liberal* in our belief. We cannot endorse another great man, who says the breath of the consumptive is not a mode of invasion. We have not time to speak of conditions forming or influencing infection by invasion, such as cities, environment, social, locality, occupation, condition, individual predisposition or physical conformation of body on sex or race or the presence in the system of other diseases, as cancer, etc. We leave them all as known and recognized factors in the mode of invasion. No recognized authority of the twentieth century denies them. Hippocrates, Aretens, Galen, Bishop, Clark, of the first centuries, described them. We have no discussion with skeptics or dogmatic didactic lecturers.

Diagnosis.—The presence of these bacilli in the sputum is infallible evidence of the existence of tuberculosis, also found on the person and in clothes. Excretions and accretions are corroborative, to say the least, both in the acute and chronic form. In galloping, or hasty, consumption they are in abundance.

Inspection, palpation percussion and auscultations assist greatly. Pleuritic adhesions, systolic murmurs, peculiar breathing, cavernous sounds, pleural effusions all enter into a correct diagnosis. With the help of the phonoscope, pleximeter, etc., we can often define and diagram the cavity. Aspirations and expirations are helpful.

With the aids we have by the mac-

roscope, microscope, and all the other family of *scopes*, by urinary analysis, thermometers and blood counters, æsthesiometers, sphygmograph, etc., we are almost without an excuse if we fail on a correct diagnosis in tuberculosis. A quick and correct diagnosis, accurate and clear, is strictly essential to the safety of your patient and to his or her friends. You want to know that as soon as practicable. Let *no daylight burn under your heels* by your blunders and indolence. Call in the x-ray, electric ray and radium ray as consultants if you are in doubt. *Don't let doubt* darken the field. Form a *correct diagnosis*—if you cannot, call on some professional brother—and don't be afraid of loss to your own reputation or character—a 2x4 man with but a trace of gray matter is not competent to form a diagnosis. Such men are always jealous, covetous and envious by nature; they can't be otherwise—don't expect a correct anything from them but failure. Any thoroughbred, up-to-date surgeon or physician of this, the twentieth, century, who has had five or ten years' experience, can form a correct diagnosis.

Prognosis of Tuberculosis.—Depends largely on locality, individuality, personality, quantity and quality of the patient and his or her environments.

We declare from experience alone that we fear the la grippe microbe in the middle-aged and old more than we do the tubercular nodule, since the miscegenation and amalgamation of the American influenza, we have a Goliath equal in destructive power to the middle aged, diseased or old aged. The more we study the tubercle, asep-

tics and antiseptics and dietetics, hygienics, etc., the more favorable becomes our prognosis.

We are told by statisticians and authorities, whose veracity is equaled only by their voracity and sagacity, that tuberculosis kills 3,000 every day, and two may die any minute from tuberculosis. These may be facts beyond question, yet we deny the necessity of the death of 10,000,000 every year from it. One-seventh of all the deaths may be due to it. And the majority of the deaths in childhood may still prove it. We are not ready to say, with the celebrated doctor who, in speaking of cerebro spinal meningitis, that it should be called "finally come and take us." Nor do we believe entirely what that wonderful surgeon and physician—superior in diagnosis—Dr. D., once said to us long years ago: "Doctor, it is only those who lack some of the positive symptoms who ever get well." Experience and statistics deny it. We do not beg the question, but simply refer it to *the experience* of any astute surgeon or physician of the twentieth century of even ten years' standing. Anyone who believes with our Prof. Senn and a host of other physicians and surgeons of today, who believe, teach and practice in the light of the fact that regeneration of tissue and reparation of Dame Nature is as possible and probable as regeneration of the soul of man.

TREATMENT OF CONSUMPTION.

This may be justly divided into three departments, *preventive, hygienic, surgical and medical.*

Success depends largely upon a correct recognition of the character of

the tuberculosis you have in your individual case and judicious use and exercise of judgment, discretion, prudence and common sense in an uncommon degree. We have no patience or use for any routine treatment. In the forty-four years of experience in civil, military, hospital and private practice our notebooks fail to record two cases just exactly alike or that required exactly the same treatment. The successful physician or surgeon recognizes this *axiomatic fact*—that consumption is not to be treated in the parent or offspring exactly alike.

Legal Prevention.—We are glad to note the fact that New York, Pennsylvania, Illinois and in our own state of Missouri laws are being and have been enacted that will result in great good to physicians, surgeons and their consumptive patients, who range in age from the infant days to Laennec's case of the man over ninety-nine years of age.

Legal Prevention is one of our sheet anchors in treatment.

Preventive Treatment. — Inspection by competent persons of *all food*, clothing, nurses and mothers of tubercular patients. Inspection of all rooms and associates of these patients. Inspection of the preparation of all foods and medicines. Examination of all water closets and exclusion of all tuberculous milk, meat, and exclusion of all prepared can foods and prepared foods of all kinds. Exclusion of all septic gases and foul air. Let an appeal for fresh, pure air and water, and plenty of it, be heard and heeded by every lover of humanity. Let antiseptics and aseptic precautions be observed, even to the extreme.

Ventilation and Cleanliness are twin sisters and virgins in whom tuberculosis finds but little friendship or culture. The "rod and the spore" find no helpful stroma in the handmaiden of our Creator. *Respect* and observe them, and let these facts remind you that "The Almighty God, your *Creator*, furnishss them freely fully and willingly, and requires only your recognition of them. They are godlikeness and godliness. God's temples are the temples for consumptives. *Open air*, free air, pure air; *plenty of it*. The virus of smallpox is not more fatal in close, shut-up wards, rooms or dwellings, than is the virus of tuberculosis, which is visible, tangible, audible, unpalatable, as well as dangerous to the olfactories. *Plenty of pure sunlight, moonlight and starlight* are all preventatives. The use of fresh fish, fowl and all nitrogenous foods, bread, etc., belong to the dietetic as well as the preventive. Don't starve, stifle or founder your patients. Fishing, hunting and swimming enter largely into the treatment. Sleeping out in the open air with the body well protected; but, for God's sake, don't be as afraid of night air as you are of drafts, *ligatures* and marshes and ravines, but get up on the mountain tops and sleep where your patients breathe well. Don't be a fakist, fadist or crankist as to any remedial remedy. Don't be an extremist.

We have often been heartsick and disgusted by doctors who are largely responsible for a great deal of the fatality of tuberculosis, by their willful and culpable neglect in seeing their patients correctly treated and observing these divine laws of prevention. If kindness ever kills, it is

by the confinement that friends, relatives and nurses often give to the patient. Some say puppies' eyes are closed by the *membrana nectitans* until the ninth day. God grant that all surgeons and physicians may get their eyes open now, in the early part of the twentieth century, and their ears open, and be attentive to the cry of suffering patients everywhere who cry daily for relief from oppression, and help these same surgeons and physicians to practice what they believe, in couching the cataractous eyes, ears and minds of relatives, friends and nurses of these suffering ones who die daily from almost total neglect, or, worse still, abuse of the known rules of prophylactic and preventive treatment.

Our Missouri statutes forbid first cousins from marrying. May the next legislature prevent the marriage of consumptives. The license to marry should be accompanied by a physician's certificate as to the condition of the health of the contracting parties. Law is a spontaneity arising out of origin, organization and conditions. Law without a penalty is a nullity, and useless in operation. While tuberculosis severely punishes the offenders, yet to prevent tuberculosis is the object lesson and subject lesson for any jurist and board of health to learn, and his duty to see it enforced.

Isolation of the tuberculosis patient is absolutely necessary—as necessary as in any other contagious or infectious disease we have to contend with.

Destruction by cremation or antiseptics of all excretions, sputa, clothing and dust of the consumptive's person and room.

Removal to single beds is the *sine qua non*. Allow no sleeping together of the infected and non-infected. Let the law and doctor enforce this by line upon line, precept upon precept, here a little and there a great deal.

When human life is more precious than the almighty dollar, when filthy lucre pales and disappears before the approach of the lover of humanity, when *covetous desires* and *mercenary fees* cease to blind the eyes of the proper custodian of health, when doctors love each other, and don't charge each other, and are not jealous, envious or egotistic, the prevention of tuberculosis will soon have been accomplished.

When we recognize that the body is the casket that contains the two precious jewels, Ego and Divine Spirit, we will treat it better and prevent the infection, not by pest houses, but by a due regard for the laws of prevention. The first speech we ever learned was:

"Man's a vapor, full of woes;
Cuts his capers and down he goes."

We hope to live to see man elevate himself to his proper sphere and live forever. The dietician D. O. L. said: "There is no reason why we should not live over a century, if we live well, and duly observe the laws of prevention, and be just translated."

Prevention of tuberculosis depends largely upon the leaders of society and the prevention of undue intimacy and unwarranted social permissions. "Familiarity breeds contempt." So if a kiss from a syphilitic can brand a mucous patch upon the nether lip of a fair one, why may not social

approximations terminate in a well-developed tubercle? I challenge the profession to deny it. Experience doth teach it—State of Nebraska prohibiting kissing of married men.—Board of Health.

Hygienic.—Consists in good environments and correct climate, proper clothing and cheerful surroundings and in a proper recognition and adjustment to variations of climates. Don't send your patients off to die among strangers, said the *Sanital*, Dickenson, of South Carolina, but select the climate to suit the case. Don't conform to style and society, but let your word be the law and gospel to parent and patient and friends, said the man of New York. Thank God tubercular patients, many of them, are by nature cheerful and hopeful and charitable and, experience teaches, faithful. Let the culture be one of cheerfulness, and get rid of all long-faced Pharisaical cocci who infest society. Be cheerful and hopeful and mindful of your duty.

We are glad to be able to say with the three advanced thinkers, that the spontaneous healing of local tuberculosis is an every-day affair. We have experienced this helpful fact—so have you.

THE CURE OF TUBERCULOSIS.

Medical.—Perhaps I can safely assert that our *materia medica* from *ab-sinthium* to the *zizyphor vulgaris* has been exhausted on its demands for *curative* remedies for tuberculosis by the surgeons and physicians of the present and last century, and we may safely say their tedious, arduous and painstaking research, study and labor and experimentation have not

altogether been in vain. The great fields of the animal, vegetable and mineral kingdoms have been thoroughly explored, every corner and crevice, by their seared light, with, often, very happy, pleasant results to their patients. Many have been cured, some relieved, some changed to a state of endurance, to a state of health. We purpose briefly to mention those which have yielded the best results and leave your good judgment and sense to suggest their *modus operandi*. *Creosote*, so named by "Reichenbeck" and justly called creosote because it is a germicide (*kreas* flesh, *sotos* preserver). It has so proven in all of its forms. It is called the alpha and omega by some in tuberculosis. I will say it justly ranks as alpha, but not always the omega.

Creosote in all of its forms is curative beyond question, guaiacol with all of its derivations, iodine, iodoform, aristol, iron, arsenic, strychnine, nitro-glycerine, codeine, mercury. Among the balsams we mention copaliba, cinnamon, cod liver oil, turpentine and terraline and hydriotic tuberculin, carbolic acid, salol. We believe from a personal experience of long standing the law *similia similibus curantur* often proves true in practice. When you wish to produce caseation, calcification, or sclerosis, we have converted these nodules into these forms to assist nature and surgery in their removal. Electricity by currents and cataphoresis, acupuncture and "Lebenswecker" all are useful by getting the antiseptic into actual contact with the bacilli.

The x-ray, electric and radium rays, colored, etc., will prove in this century great assistants. That which will kill

the cancer germ, will surely debilitate if not destroy the tuberculosis germ. Oxygen, hydrogen, nitrogen and chlorine gases also are useful, and sometimes curative and beneficial. We have convalescents now enjoying good health in the east, west, north and south, from the Gulf of Mexico to the coast of Maine, who were cured by some of these medicinal remedies in the last forty-four years. We would also mention blood, burdock, adrenalin, protoneucelin, bovine, peptomangan, mecroline, cascara sagrada. The scrofulous form yields to syr. ferri rod. et burdock (lappamajor) and guaiacol with wine, whiskey, brandy, white rock candy and glycerine.

Surgical Treatment.—We have left this last for obvious reasons. Combined with correct medicinal treatment, it affords the patient often not only health and safety, but immunity is often the result. The *knife* in the hands of the skillful, tactful, conservative surgeon will often relieve the patient of a *useless, morbid* limb, organ, gland or sac, which not only endangers *life* and *limb*, but is a constant source of grief, suffering and danger. Ex.—A noted jurist now occupies the bench in this large city who, in 1893, was relieved of tubercular pericarditis and effusion by a professor of surgery in one operation. A lady now lives and enjoys good health not far from here who had pulmonary tuberculosis and uterine carcinoma. Her physician cured the tuberculosis and the surgeon removed the intra-vaginal tract of uterus. The surgeon, by aspiration, injection, incision and excision, can often remove the products of tuberculosis and re-

store function and use of what he leaves. Time and space would fail me in giving even an outline of the wonderful victories that have crowned the heroic, brave surgeon and patient who have thought clearly and acted bravely and been blessed sincerely by God and humanity.

Gentlemen of the profession, allow me to thank you kindly for your forbearance and attention. Let us all quit putting on agony—putting on style—as all the people are doing all the while. Let us all get down to united study, action and work and fight tuberculosis until we have conquered it and banished it from the shores of fair America. Our brethren

across the water have already engaged successfully in the battle, and extend to us the helping hand. United we stand, divided we fall.

May the full blaze of advancement, progress and enlightenment of this twentieth century banish egotism, jealousy, envy, develop healthful competition and fully destroy tuberculosis in all its forms. May we be as successful in this as we have been with other antitoxines in inoculations as taught by Koch, Senn, Pasteur and others in tetanus, diphtheria, hydrophobia and anthrax and glanders. With such able men as Senn and Davis and Doler to help us, we may expect and hope for it.

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EDITORIAL.

THE BLUE BOOK.

During the coming spring the American Medical Association will publish a medical directory containing the names of all members of the state and territorial associations. In the January issue of this journal appeared an alphabetical list of the members of the Missouri State Medical Association. This list, with the addition of such information as may be

obtained from the card index in the office of the secretary of the State Association, will be forwarded to the American Medical Association for publication in the national directory. If there are any additions or corrections they should be made by secretary of the county society without delay. The blue book will contain the cream of the medical profession of the United States.

CITY HOSPITAL ALUMNI.

Thursday evening, the 7th of January, the Alumni Association of the City Hospital gave their annual banquet at the Mercantile Club. The attendance was large and the occasion furnished an opportunity for those who had been connected with one of the city medical institutions to talk over old times. The event of the evening was a paper by the incoming president, Dr. John Green, Jr. His criticism of the method of conducting our City Hospital met with the hearty approval of most of the members present. The fact was pointed out that in all other large cities of the United States the hospitals maintained at public expense were provided with an attending staff who performed all major operations, made all the diagnoses and directed all treatment. This staff was selected from the profession, and included the most able practitioners, men who had spent many years in becoming thoroughly fitted for the special work in the direction assigned. As a result the internes had the advantage of post graduate instruction, and the city's charity were attended by the ablest men in the medical profession. In other words, a charity hospital should not be conducted for the benefit of the superintendent (who should be a layman), but for the benefit of the city's charity and the medical profession.

ANNUAL DUES.

The secretary of the County Medical Society is expected to forward the annual dues for each member of his society to the secretary of the State Medical Association. The dues are

payable on January 1st of each year. Any member who shall fail to pay his annual dues by April 1st, shall be held as suspended without action on the part of the society.

Dues to the State Medical Association cannot be received except through the secretary of the county society, who must report all members and forward dues for each.

DR. RIXEY'S REPORT.

The report of Dr. Rixey, the surgeon general of the United States army, for the fiscal year ending June 30, 1904, has recently been issued. Since more careful attention has been given to sanitary matters the health of the army has been improved. The portion of the report which will give the greatest satisfaction is that which refers to the decrease of cholera in the Philippine Islands. This favorable state of affairs is undoubtedly due to the untiring efforts of the army medical officers in preventing its spread among the troops serving at the island station.

Improved health conditions prevailing among the United States troops is almost entirely owing to the advance made in sanitary matters since the war. Typhoid and malarial fevers show a gratifying decrease. The prevalence of tuberculosis varied but little from that of previous years. There were 636 cases of beri-beri, almost entirely confined to the Philippine soldiers, while of bubonic plague in 1903 there was not a single case. A reduction in intestinal affection among the troops was noticed. Insanity was less prevalent in 1903 than in any other year.

COUNTY MEDICAL SOCIETIES.

There are now seventy county medical societies in affiliation with the State Medical Association. The work of organization is progressing in a most satisfactory manner, not only new societies being added to the list each month, but individual societies are increasing in membership. Two or three are at a standstill and one has failed to have a meeting during the past six months. The question has been asked, What can be done to enthuse interest in the meetings of the county societies? The answer is, make them more interesting. It is a very simple matter to say what should be done, but quite another thing to get the work done. This applies very emphatically to the work of keeping up county societies. Dr. George H. Simmons says: "Successful county society work, outside of the popular centers, depends on the secretary of the state association, on the councillors, on the secretary of the county society and on the members. I have put them in the order of most importance."

"If the secretary of the state association is very active, and will sacrifice himself sufficiently, he can do more than any other one individual. In fact, whenever the state association has a poor secretary, poor work will almost surely result."

"Next come the councillors. In my estimation, the councillor system is the most important part of our organization work, for the reason that it throws on one man the responsibility of certain counties. This responsibility consists in his keeping in close touch with what his societies are doing, visiting them occasionally and

making suggestions to them as to how the organization can be made more effective."

It must be stated as an axiom that a society whose average attendance is less than ten will die a natural death, as far as scientific work is concerned, unless outsiders come in and infuse new thoughts and new interest. If this is recognized and acted on, the societies now dormant will become active. I know of no society, large or small, that is successful, that does not invite outsiders to read papers or address them occasionally. The Chicago Medical Society, the largest local society in the world, has quite often on its program some one from outside of the state; and if it is necessary for the Chicago Medical Society to do this, how much more necessary is it for the little societies that have so few men connected with them who are able to read papers? The councillor should realize this, and should try to get some men in his territory who will volunteer to read papers before different societies. There will be some in each district who will be willing to go to other districts, and, consequently, it would be a good plan if each of the councillors would get a list of the men in his territory and form a kind of "lecture bureau," if we may call it such, giving the titles of the papers and how far from home they are willing to go. These men should be encouraged to write good papers by the promise that they should have a chance to read them at a number of meetings. This would be a good thing for them, because they would perfect themselves in the subject through hearing discussions of it; but, above all, it would be a

good thing for the society before which the paper is read.

In my estimation, carrying out this idea systematically will enthuse interest into all the societies in our state.

THE FAR EAST.

Efforts in behalf of international peace will have the hearty endorsement of the medical profession when it is known how supremely horrible modern war has become as exemplified at Port Arthur. According to press dispatches, when the surrender of the city came 20,000 of its inhabitants were sick; 11,000 Russian soldiers had perished during the siege; hundreds of peaceable citizens had lost their lives; hundreds of persons were suffering from the dread disease beri-beri; every man in the trenches had been wounded from one to six times; the place was a shambles, men fighting each other like wild beasts. As for the hospitals, no word can adequately picture their horrors. They were worse than the battlefield; they were gorged with broken, shell-torn bodies. A nauseating odor poisoned the air of the wards, and even sickened the sisters of charity, accustomed as they were to such experiences.

OBITUARY.

Dr. Charles Brockhausen died at the age of sixty-one years and four months, at his home in Hermann, Monday night, December 19th, death resulting from a fracture of the skull, caused by a fall. He was born in 1843 in Bloomberg, Lippe Detmold, Germany. When twenty years of age he came to St. Louis, entering the employ, as druggist, of Dr. Louis

Schlade. Here he studied medicine, and later entered the St. Louis Medical College, taking his degree in 1871. In the city hospital he served as assistant physician during the cholera epidemic. After a post-graduate course in New York he began practice at Berger, Missouri. In 1893 he moved to Hermann, where he continued in active practice up to the time of his death.

PROPHYLAXIS OF MALARIA.

Since it has been demonstrated that the malarial fevers are due to an animal parasite transmitted from one person to another through the intermediation of certain mosquitoes, it can be comprehended that the only connection between malaria and bad air resides in the fact that emanations from decomposing vegetable matter takes place under conditions that favor the propagation of the intermediating mosquito. In view of the facts as they have been demonstrated, it should be scarcely, if at all, more difficult to eradicate malaria than it has been possible so to do with yellow fever in Havana. Indeed, the task should be even simpler, inasmuch as in quinine we possess a specific remedy against the disease that has also considerable prophylactic value.

The means of prevention based on the known facts must consist (1) in the vigorous treatment of all individuals suffering from malarial fevers, thus eliminating sources of infection; (2) in destruction of the parasite-bearing mosquitoes, and (3) in case of failure to destroy the mosquitoes, in protecting healthy persons from their bites. A most interesting discussion on this subject was held in

the section of tropical diseases at the meeting of the British Medical Association, recently held at Oxford, and participated in by a number of experts, who spoke authoritatively from personal observation.

Dr. J. W. Stephens (*British Medical Journal*, September 17, 1904) laid emphasis on the fact that only certain species of anopheles acted as the intermediate host and carrier of the malarial parasite, and that the species varies in different localities. In conformity with this fact, the measures to be employed for the eradication of the breeding places of the pathogenic mosquito will vary in accordance with the species and its individual habits. In contradiction of a somewhat prevalent fallacy, Stephens and Christopher found that the normal flight of anopheles is a matter of only some hundred yards and not miles, and the intensity of infection and the danger therefrom grow gradually less as the distance from the breeding grounds increases, disappearing ordinarily at a distance of about one mile.

The methods of prophylaxis to be enforced are (1) antilarcal, (2) mechanical, (3) medicinal and (4) segregatory. The first consists in systematic drainage, as a result of which the breeding places of the larvæ are removed. Petrolage, or the covering of the surface of a collection of water with petroleum, can be considered only as a temporary expedient and not as an ultimate means of eradication. Mechanical prophylaxis consists in the use of wire screens, mosquito netting, veils, gloves and similar means of preventing the access of mosquitoes to both the sick and the healthy. Medicinal prophylaxis con-

sists in the administration of quinine in suitable dosage to individuals exposed to the danger of infection with malaria. Finally, separation of the sick from the well has been recommended in tropical countries, with the object of avoiding such exposure.

Only by the intelligent application of the foregoing measure is it possible to diminish on any large scale the prevalence of the malarial fevers, and evidence is not wanting of their practical efficacy.—Editorial in *Journal of the American Medical Association*, November 26, 1904.

HAY FEVER—THE SITUATION AS REGARDS THE SERUM TREATMENTS OF.

The exasperating resistance to treatment of the disease commonly known as hay fever, makes it one of the most interesting subjects to the practitioner. The great interest shown of late in the serum treatment, and the present visit to this country of Dr. William Dunbar, who is a native of this country, and whose serum is being used so extensively for hay fever, make it of interest to review briefly some of the facts that have previously appeared.

The disease has been described under a variety of names—summer catarrh, hay fever, hay asthma, pollen catarrh, rose cold, June cold, concert cold, railroad fever, sun fever, dust fever, autumnal catarrh, and peach cold. Many theories have been put forward to explain the phenomena of the affection. The pollen theory, especially supported by Blackley, was one of the earliest. The heat theory, the light theory, the nervous and other theories are familiar to all.

Gradually the view became widespread that at least two factors are concerned in the etiology—a predisposition and an exciting cause. The theory of a bacterial origin found many supporters. Dunbar began by searching for a causal bacterium, but in the course of his studies became convinced that the disease is not due to bacteria, but to the irritative effect of pollen on the mucous membrane of susceptible persons.

Dunbar, in several papers, has detailed the progress of his studies. Suffice it to say here, that his experiments indicate that it is neither the mechanical action of the pollen grains themselves nor any oily or volatile constituent of them which sets up an attack, but, instead, some proteid constituent of the nature of a toxalbumin. Of the pollens prevalent at the time of the early summer catarrh, or hay fever proper, those of rye and maize contain the poison in largest quantities. In the autumnal catarrh of this country, golden-rod (*Solidago*), ragweed (*Ambrosia*), and wormwood (*Artemisia*) have been held responsible. As little as 1-40,000 of a milligram of the rye-pollen toxin placed in the conjunctival sac will call forth, in susceptible individuals, a paroxysm of hay fever lasting several hours. This quantity of toxin corresponds to only two or three pollen granules. Dunbar asserts that, while the toxalbumin constantly calls forth an attack in susceptible persons, it is without effect when instilled into the eyes or placed on the nasal mucous membrane of non-susceptible individuals. Liefman proved that during the hay fever period in Germany there is more than

enough pollen in the air to account for the toxic effects on hay fever patients, his researches thus confirming the earlier ideas of Blackley. He has shown also that on days when hay fever patients suffer greatly, there is more pollen in the air than on days when they are relatively free from symptoms.

Dunbar found on mixing the toxalbumin with the serum of animals which had been previously treated with pollen or the extracted poison, that the former was rendered innocuous. Unlike diphtheria antitoxin, the hay fever serum is not to be used subcutaneously, for subcutaneous injections give rise to unpleasant symptoms—itching, swelling, and erythema. Experiments have shown that the local application of the serum to the irritated mucous membrane is more effective than its introduction hypodermically.

The serum has been patented under the name of "pollantin" in Germany, England and the United States. To the liquid serum one-fourth per cent. phenol is added, but this amount is not sufficient to delay bacterial growth if the bottle has been opened and contaminated. Some people, too, have an idiosyncrasy for phenol, and cannot bear the application even of minute amounts. Instead of the pollutant in liquid, the substance is now supplied preferably in the form of pollantin powder, the latter being obtained by evaporating the serum to dryness, powdering it finely, and mixing it with a little milk sugar. It is maintained that the substance is entirely harmless even in large doses. A single dose, it is emphasized, does not completely immunize the patient

against all further attacks. On the contrary, during the hay fever season the treatment has to be resorted to frequently, best every morning, just before rising. Used in this way it will, it is said, keep a patient free from attacks for several hours, sometimes for the whole day, even when he spends it in the open air.

This new method of treatment of hay fever, originating in laboratory experiment, is rapidly being submitted to the test of clinical experience. In this country we have reports from Mayer, MacCoy and Somers, and the articles of Bailey, Lockwood, Henderson and Dupuy also deal with the subject. The most complete review of clinical work thus far is that of Lubbert and Prausnitz. They have collected some 222 cases of ordinary hay fever cases; 127 are said to have yielded a favorable result, 71 a partly favorable result, and in 24 the result was negative. That is to say, in 57 per cent. of the cases marked relief was obtained, in 32 per cent. the relief was more or less marked, and in 11 per cent. no benefit was derived. Of the 63 cases of autumnal catarrh 44 (or 70 per cent.) yielded positive results, 12 (or 19 per cent.) partly positive, and 7 (or 11 per cent.) negative. In view of the short time which has elapsed since this attempt at rational therapy has been begun, and considering the difficulty which physicians have in such a treatment in inducing patients to follow directions strictly, the results thus far gained must be regarded as favorable.

The whole question of the value of the treatment is as yet, however, in the experimental stage. In a disease

like hay fever, where at least in a large majority of the cases an over sensitive nervous system plays an important role, the greatest care must be exercised, especially in the judgment of the effects of therapeutic measures. A much larger mass of clinical evidence must be awaited before the matter can positively be pronounced upon. The disease is so widespread, however, and measures which are purely suggestive are, as a rule, so short-lived that we can be tolerably sure in the course of the next few summers of arriving at definite conclusions regarding the efficacy of the serum treatment.

A word as to the commercial exploitation of the serum. Pollantin, as has been mentioned above, has been patented. Very vigorous business methods are being utilized to sell it. In Germany medical men think it no breach of medical ethics to patent a new remedy. Physicians feel differently about these matters in America. Should the serum treatment ultimately prove to be positively efficacious in the treatment of hay fever, it is highly desirable that it be furnished to the great host of sufferers at a nominal cost and not for purely commercial gain—Editorial in *Journal of the American Medical Association*, October 15, 1904.

NEW MEMBERS RECEIVED.

Tarleton, G. W., Cape Girardeau.
Cunningham, H. L., Cape Girardeau.
Dalton, R. R., Cape Girardeau,
Rosenthal, M., Cape Girardeau.
Schulz, G. B., Cape Girardeau.
Porterfield, J. D. jr., Cape Girardeau.
Brooks, J. Frank, Cape Girardeau.
Howard, W. N., Cape Girardeau.

Wichterich, R. F., Cape Girardeau.
Statler, W. K., Oak Ridge.
Henderson, R. F., Jackson.
Porterfield, Elmo, Cape Girardeau.
Hart, A. E., Dutch Town.
Higdon, E. E., Allenville.
Hodges, J. J., Granby.
Harrison, G. W., Newtonia.
Brown, W. D., Newtonia.
Hancock, J. B., Newtonia.
Chapman, U. B., Diamond.
Bridges, J. M., Tipton Ford.
Lamson, J. W., Neosho.
Yates, Paul C., Neosho.
Maas, A., Neosho.
Benton, A. W., Neosho.
Lamson, R. C., Neosho.
Cravens, W. A., Granby.
Porter, H. L., Seneca.
Langley, J. W., Granby.
Russell, S. A., Stella.
Roseberry, C. M., Neosho.
Bowers, H., Neosho.
Mixer, A. M., Neosho.
Cleave, C. T., Neosho.
Foster, H. F., Neosho.
Willis, R. L., Neosho.
Campbell, Wm., Seneca.
Maurice Andre, St. Genevieve.
Hertie, C. J., St. Genevieve.
Hinch, F. E., St. Genevieve.
Lanning, R. W., St. Genevieve.
Rutledge, G. M., St. Genevieve.
Meyer, A. G., St. Genevieve.
Moore, C., St. Mary.
Burgess, L. D., St. Mary.

Morganstein, H. J., Weingarten.
Counts, H. J., Ulam.
Forsythe, Robert C., Kirkwood.
Slaughter, S. C., Fredericktown.
Barron, W. H., Mine La Motte.
Epperly, R. G., Prairie Hill.
Wale, D. V., Carthage.
Harrutun, M. B., Joplin.
Freeland, P. L., Joplin.
McBride, C. E., Webb City.
Rogers, W. H., Ashburg.
Coil, P. E., Mexico.
Lanier, Herbert, Martinsburg.
Baker, Charles, Santa Fe.
Blankenship, W. R., Madison.
Carger, F. H., Madison.
Winters, W. S., Asherville.
Wilson, Eli, Leora.
Cline, B. J., Ardeola.
Gale, F. W., Marquand.
Hudson, T. M., Perryville.
Blaylock, G. N., Silver Lake.
Bowman, C. B. Longtown.
Clark, J. P., Perryville.
Estel, T. F., Atlenberg.
Garner, K. C., Crosstown.
Hatcher, W. H., Perryville.
Manning, L. R., Brewer.
Morton, D. F., Perryville.
Russell, J. W., Longtown.
Vessells, F. M., Perryville.
Montgomery, John S., Milan.
Cooper, C. C., Rolla.
Haller, E. C., Harrisburg.
Lewis, C. O., Fayette.
Bonham, V. Q., New Franklin.

NEWS ITEMS.

Dr. J. H. Musser, president of the American Medical Association, at the request of the secretary of the International Medical Congress, which meets in Lisbon in 1906, and on approval of the House of Delegates, has appointed the following members of the American Committee of Arrangements: Drs. Frank Billings, Chicago; Herman M. Biggs, New York; Herbert L. Borell, Massachusetts; William T. Councilman, Boston; William H. Carmalt, Connecticut; Richard C. Cabot, Massachusetts; N. S. Davis, Jr., Illinois; Charles H. Frazier, Philadelphia; R. H. Fritz, Massachusetts; W. E. Fischel, Missouri; Charles Lyman Greene, Minnesota; Ramon Guiteras, New York; H. A. Hare, Pennsylvania; L. Hektoen, Chicago; Edward Jackson, Denver; E. J. Janeway, New York; A. Jacobi, New York; George B. Johnston, Richmond, Virginia; W. W. Keen, Philadelphia; Howard A. Kelly, Baltimore; Charles Kollock, South Carolina; L. S. McMurtry, Louisville, Kentucky; James H. McBride, California; A. T. McCormack, Bowling Green, Kentucky; K. A. Mackenzie, Portland, Oregon; John Herr Musser, Philadelphia; J. B. Murphy, Chicago; R. Matas, New Orleans; William Osler, Baltimore; Charles Powers, Colorado; J. B. Roberts, Pennsylvania; W. L. Rodman, Pennsylvania; M. H. Richardson, Boston; Charles A. L. Reed, Ohio; H. M. Sherman, San Francisco; Frederick C. Shattuck, Boston; George H. Simmons, Chicago; Charles G. Stockton, New York; George Sternberg, Wash-

ington, D. C.; Victory Vaughan, Ann Arbor; John A. Witherspoon, Tennessee; J. Collins Warren, Massachusetts; J. C. Webster, Chicago; William H. Welch, Baltimore; John A. Wyeth, New York. The surgeons-general of the army, navy and United States public health and marine-hospital service. The presidents of the American Dermatological, Laryngological, Surgical, Climatological, Neurological, Medico-Psychological and Orthopedic Associations. The presidents of the Association of American Anatomists, Association of American Physicians, American Association of Genito-Urinary Surgeons, American Association of Pathologists and Bacteriologists, New York Academy of Medicine; College of Physicians, Philadelphia; Cook County Medical Society, Chicago, and the Society of Medical Improvement, Boston.

The Cuban house of representatives on December 14th passed the bill appropriating \$190,000 for the sanitation of the streets of Santiago, Cienfuegos, Cardenas and Matanzas. The work is to be done in connection with the request of the United States and the recommendation of President Palma, under the direction of the general government. While the representatives of the United States were concerned essentially with the sanitary conditions of the principal ports, it is expected that President Palma's recommendation for supervision of sanitary matters in all the towns will be embodied later in a comprehensive law.

The following is the clause relating to hospitals in the agreement between this country and Panama, recently signed by Secretary Taft: "The United States will construct, maintain and conduct a hospital or hospitals, either in the canal zone or in the territory of the republic, at its option, for the treatment of persons insane or afflicted with the disease of leprosy and any indigent sick, and the United States will accept for treatment therein such persons of said classes as the republic may request, but this order shall not be operative unless (1) the Republic of Panama shall furnish, without cost, the requisite lands for said purposes, if the United States shall locate such hospital or hospitals in the territory of the republic; and (2), that the republic shall contribute and pay to the United States a reasonable daily per capita charge in respect of each patient entering upon the request of the republic, to be fixed by the secretary of war of the United States.

Medical boxes to be used for first aid to the injured by the Pennsylvania Railroad are being sent out to various points from Altoona. The boxes are wooden and oblong in shape, eight by five inches. Each is sealed, with written instruction on the outside. Inside is a tin box, securely sealed, with more instructions. When the inner box is once opened it must not be used again, but must be returned to Altoona to be fumigated and additional materials inserted. The box contains rubber bandages, compressors and other material used in the first aid process.

The new tuberculosis building at the Johns Hopkins Hospital, adjoining the general dispensary, will be formally opened about January 15. It is the gift of Mr. Henry Phipps, of Pittsburg, who gave \$20,000 last winter, through Dr. Osler, for a separate dispensary for tuberculous patients. The building is two stories high. It will be equipped with a special library on tuberculosis. The walls are of brick and are painted with white enamel paint and the floors are treated with a nonabsorbent preparation. The Lænnec Society will have charge of the exercises at the opening. For several years special provision has been made in the general dispensary for the treatment and visiting of tuberculous patients through the generous gifts of two Baltimore ladies.

During the month of October the assistant medical inspectors of the Philadelphia schools examined 43,722 school children and excluded 1,502, or about 3.8 per cent. Of this number six were excluded for diphtheria, nine for scarlet fever, ninety-seven who had been in immediate contact with cases of scarlet fever, seventeen for chickenpox, nine for mumps and seven for trachoma. There were 364 children sent home because of pediculosis capitis, thirty because of itch, 134 because of impetigo contagiosa, seventeen because of favus, eighty-eight because of acute, non-contagious inflammation of the eyes, eighty-eight because of ring worm, nineteen because of suppuration of the ears, 316 for more or less serious defects of vision and 134 for unsatisfactory vaccination.

Dr. Yamei Kin, an American graduate in medicine, born in China, has lectured in Cleveland on the Empress Dowager of China, and will probably repeat the discourse in other cities. She speaks Chinese, Japanese and English fluently.

Giovanni Grizoni believes that the most rational treatment for erysipelas is serotherapy. The failures in this treatment are due to the technique used in the preparation of the serum used. The streptococci, producing different cases of inflammation, seem to differ in species, so that it is necessary to use a serum prepared from a case of the same type to get the desired effect or to make one by inoculation of several species of streptococci. The use of the serum too late or in insufficient doses may account for some failures. In a very severe case of infection observed by the author the use of serum had a really marvelous effect. The patient was affected first by tonsillitis, then by erysipelas of the face, extending to the neck and scalp, then by purulent otitis media. Meningitic symptoms came on rapidly, and the patient was in coma and almost moribund when the first serum injection was given. In all four injections were made; and the improvement was immediate and rapid, ending in complete recovery. The short duration of incubation and and rapid diffusion showed the gravity of the infection.

Should the development of the study of toxins and antitoxins render possible the production of an antibody capable of neutralizing the results of muscular fatigue, the consequences

could hardly be predicted. Yet a German investigator seriously claims to have taken more than one step in this direction already, and publishes results that are at least surprising. Weichardt (*Nunchener medizinische Wochenschrift*, November, 29, 1904) says he has obtained a stable antitoxin, which, when taken by the mouth in moderate doses, permits the output of an increased amount of muscular energy without fatigue, and when taken continuously causes a sense of general *bien etre*, and augments the capacity for work. He commends his preparation to clinicians as a promising analeptic for convalescents, neurasthenics, etc. This fatigue antitoxin is obtained from horses by injecting them with fatigue toxin produced in the muscles of animals that have been subjected to extreme muscular exhaustion. The most rigid precautions are necessary to avoid bacterial contamination during the process of extraction, and the muscle extract, or toxin, is purified from the ordinary products of muscular activity by dialysis. It can then, under certain precautions, be dried and preserved for a short time, but rapidly loses its potency, in distinction to the antitoxin, which may be kept indefinitely. Minute amounts of this body injected into small animals, as mice, rabbits or guinea pigs, cause all the symptoms of fatigue, and in case the dose is sufficiently large, the substance occasions the death of the animal. Control experiments show that the extract obtained from unfatigued animals, killed without any struggling, is without physiological effect, proving that the toxin produces an antibody which differs from the bacterial

antibodies in that it is absorption when introduced into the stomach. The effect of the toxin on experiment animals may be neutralized by mixing toxin and antitoxin before administration, or the animal may be protected by preliminary injections or feeding of the antitoxin. The antitoxin appears to be much more powerful than the toxin, as it requires only 1-10 mg. to neutralize 10 mg. of the fresh toxin.

At a meeting of physicians recently held at the Great Northern Hotel, Chicago, preliminary steps were taken for the organization of the Illinois Society for the Prevention of Tuberculosis. The plan is to concentrate the efforts of the state board of health, the Illinois Medical Society and the committee on tuberculosis of the Visiting Nurses' Association of Chicago. The first work of the society will be to secure a \$250,000 appropriation for a state sanatorium, where researches can be conducted and consumptives treated. The next step will be to establish branches. Particular attention will be devoted to out-of-doors camps. Dr. George W. Webster, president of the state board of health, presided, and Dr. Arnold C. Klebs offered a resolution providing for the appointment of a committee of ten to draft by-laws and constitution and to prepare a list of candidates for directors to represent all committees and interested organizations. The matter was settled by the appointment of the following organization committee: Drs. Arnold C. Klebs, William E. Quine, Charles L. Mix, J. W. Pettit, George W. Webster, N. S. Davis, Ludwig Hektoen, Frank Billings,

William A. Evans, Robert H. Babcock, N. A. Graves, N. P. Bicknell, Sherman C. Kingsley, N. B. Delamater.

The Chicago Medical Society has undertaken to deliver a series of public lectures on popular medical topics, and last week a lecture on "How to Prevent Consumption" was delivered by Dr. William E. Quine, and one by Dr. James M. Brown, entitled, "Minor Accidents, Frost Bites and Burns."

The instruction committee of the board of education of St. Louis has recommended the adoption of a plan which they hope will result in saving the eyes of first-year kindergarten pupils in the public schools, by shortening the time allotted to writing. Teachers have reported to the committee that too close attention to writing by the small pupils seems to be injurious to the eyes, and the plan is to shorten the writing periods and give the little ones some sort of manual work which will not cause a strain on the eyes, yet at the same time prove instructive.

The Cuban house of representatives recently passed a bill appropriating \$190,000 for the sanitation of Santiago, Cienfuegos, Cardenas and Matanzas. The senate amended this bill by increasing the amount of the appropriation to \$326,000 and adding ten more towns to the original four cities where improvements are to be made in the sanitary arrangements. This action of the senate postpones the final settlement of the matter until congress convenes again next month.

In the course of the debate on the bill some sarcastic remarks were indulged in by several of the speakers, who said the condition of the streets in many cities of the United States was worse than those of Cuba. Many Cubans, who this year visited St. Louis, they said, could testify that the streets of New Orleans were in much worse condition than those of any Cuban town.

Frederick T. Lord has performed a number of interesting experiments with flies and tuberculous sputum. He concludes that flies may ingest tuberculous sputum, and excrete tubercle bacilli, the virulence of which may last at least fifteen days. Bacilli appeared in the stools within at least eighteen hours after the ingestion of the tuberculous sputum. The number of bacilli in each microscopic field increased from about ten in the original sputum, to 150 in the specks. Paraffin sections were made from many flies fed on tuberculous sputum, and tubercle bacilli were found in the intestinal contents of all. No invasion of other parts of the body could be determined. The bacilli in the specks were much larger than those in the original sputum, and showed some evidence of apparent branching. The writer believes that it is probable that the usual contagion of tuberculosis is not by the ingestion of infected food, but by the drying and distribution as dust of infected material through the air. The danger of human infection from tuberculous fly specks is by the ingestion of the specks on food. Spontaneous liberation of tubercle bacilli from fly specks is unlikely. If mechanically disturbed, infection of

the surrounding air may occur. The writer states that he has often noted the eagerness with which flies feed on sputum, even when other food is accessible. He has no doubt that flies play a part in cases of primary tuberculosis of the intestines, or the mesenteric lymph glands in man, due to the ingested infected food. The writer suggests in conclusion that tuberculous material (sputum, pus from discharging sinuses, faecal matter from patients with intestinal tuberculosis, etc.), should be carefully protected from flies, lest they act as disseminators of the tubercle bacilli. During the fly season, greater attention should be paid to the screening of rooms, and hospital wards containing patients with tuberculosis, and laboratories where tuberculous material is examined. As these precautions would not eliminate fly infection by patients at large, food stuffs should be protected from flies who may already have ingested tuberculous material.

Many years ago Dr. S. Weir Mitchell first succeeded in impressing upon the mind of the medical profession the fact that errors in refraction and insufficiencies of the external ocular muscles were capable of producing disorder of nervous function in other portions of the body than the eye. Without doubt this clinical observation of Dr. Mitchell has proved itself to be an exceedingly valuable one, and has resulted in the recognition and relief of a large amount of suffering which drugs can only palliate, but which properly adjusted glasses can often relieve. Unfortunately, the truth which underlies this discovery has been magnified until certain per-

sons profess to believe that a host of pathological conditions may have their origin in eye-strain, and medical literature during the last fifteen years, and more particularly within the last two or three years, has fairly teemed with productions which, while they have been advantageous in the sense that they have drawn attention to the importance of this subject, have nevertheless been so excessive in their claims that experienced and conservative physicians and ophthalmic surgeons have been at once amused and annoyed by efforts devoted to making eye-strain an almost universal cause of disease.

We have read with much interest and amusement a paper presented to the New York Academy of Medicine by Dr. Dana, who first calls attention to the fact that the eye seems to be the only organ which is popularly associated with a strain, for, to use the words, "we do not hear of ear-strain nor tongue-strain, stomach-strain nor kidney-strain." Dr. Dana discusses the question as to whether cerebral strain resulting from abnormalities in the eye plays a part in the production of psychosis or morbid mental states. He asserts that alienists, without exception, do not recognize eye-strain, even as a contributing cause, so far as the major psychosis are concerned, and adds that after sixteen years of watching he has found hardly any cases in which eye-strain has been an important and direct factor in establishing even a minor psychosis. He concludes that perhaps, after all, the "most real psychosis connected with eye-strain is that shown by a group of enthusiastic oculists who have become possessed

with the idea that eye-strain forms the background of most pathological conditions." At the same time the writer of this editorial and Dr. Dana are nevertheless in accord, for we both believe that eye-strain should be carefully looked after, but don't believe that our "mental balance and nervous well-being are entirely at the mercy of slight defects in the eye," to use Dr. Dana's words.

Thomas W. Dorsett, in the *Therapeutic Gazette*, makes a plea for the recognition of the presence of the intestinal parasite *Uncinaria Americana*, which he states is making frightful ravages among the so-called dirt eaters of Georgia, dwarfing both in body and mind great numbers, especially of the innocent barefooted boys and girls of the rural districts. The doctor thinks from clinical experience that the larvæ enter the body through the skin of exposed parts, notably the hands and feet, giving rise in those parts to the condition known as "ground itch." He has never seen a case of *uncinariasis* but that there had been a previous ground itch. Those who live in the southern parts of the United States should ever remember that in the vast majority of cases of anemia in those sections the hookworm and not the malarial parasite is the etiological factor. The diagnosis of the malady is exceedingly easy for one with a microscope, for the eggs are readily seen and recognized in the feces. Lacking a microscope, one is dependent upon the clinical manifestations: The patient at the opening of spring begins to feel badly, with a disinclination to work, and by summer may be in a very critical condition. During

the winter months he feels much better or quite well. The victim's growth is slow, he appearing as of but ten or twelve years when he has reached eighteen or twenty. The complexion is very sallow, the hair usually very light in color; the beard grows but little, and mental development is much retarded. In some cases there may be edema or even anasarca, and often there is slight elevation of temperature. The treatment is very simple and effective; thymol in 60-grain divided doses may be required. It is highly important that the patient take no alcohol in any form while taking the thymol, as it may dissolve the agent, allowing absorption and poisoning. The gastrointestinal tract must be thoroughly cleaned before administering the thymol. This is accomplished by calomel, ten grains, followed by the salts or oil. The thymol is given in the morning in three doses of twenty grains each hour for three hours. The patient is confined to his bed while the thymol is in the bowel, without breakfast or dinner. At 6 P. M. a large dose of salts or oil is administered to remove the worms. The patient is allowed no usual supper. If the gastrointestinal tract be not thoroughly emptied of fecal matter, and food prohibited for two meals preceding and two meals following the administration of the thymol, the worms will not all be expelled. The treatment should be repeated in a few days if the eggs are still found in the feces.

The secretary of war, in his annual report, recently submitted to congress, remarks that "it is evident that a staff department which has a per-

sonnel insufficient to perform the duties required of it in time of peace cannot be successfully expanded to meet the increased responsibilities of war. The commissioned personnel of the medical department is nearly two hundred short of the number required to perform its work at present, and the deficiency has to be made good by the employment of civilian physicians under contract. This is an expensive and unsatisfactory expedient in time of peace, while in time of war it heavily handicaps the efficiency of the department. A bill to increase the efficiency of the medical department was sent to congress at its last session with my approval, it having also received the favorable indorsement of my predecessor, Mr. Root. It provides for an increase in the medical department from 320 to 420, so as to do away with most of these contract surgeons. It also provides, approximately, the same proportion in each grade as is now given to the medical department of the navy, and which the medical department of the army enjoyed prior to the reorganization of February 2, 1901. While this bill will only slightly increase the cost of the medical department, it will very greatly increase its efficiency."

Colonel Nicholas Senn, I. N. G., will represent the Association of Military Surgeons of the United States at the Pan-American Medical Congress.

On the initiative, as would appear, of the French government, an international conference is to be held at The Hague, at an early date, to draw up regulations with regard to hospital

ships in naval warfare. The chief object will be to revise existing international rules, so as to leave no doubt with regard to the neutrality of hospital ships. The need of such ships in actual warfare is, of course, everywhere recognized. Japan has two hospital ships, and Russia has recently commissioned the *Oriel*. Hospital ships have been commissioned on several occasions in the British navy for the transport of sick and wounded of the army. At the present time the royal navy possesses only one hospital ship, the *Maine*, which, since its employment during the South African war, has been reconstructed, and is now attached to the Mediterranean squadron. It is, we believe, found extremely useful and convenient, especially in the case of the smaller ships, such as torpedo boats and destroyers, which have no sick bay. Patients are received on the *Maine*, and treated there, and the ship makes occasional trips to this country when a considerable number of invalids need to be brought home,

Broca observed this interesting case. The patient was a boy of four years. The first sight of trouble was toothache, of which the child complained on June 22d. A physician diagnosed a small dental abscess at the root of the first lower molar. But the occurrence was thought of little consequence, and was forgotten till the child's condition became serious. On July 1st, after a night of fever and delirium the patient was placed under a physician's care, twenty-four hours of valuable time being lost at this time, before the morning visit of the physician. On July 2d the pa-

tient was seen by the writer. In the right preauricular, parotid, and angulo-maxillary regions there was diffuse swelling, oedematous and non-phlegmonous. The skin was neither red nor puffy. There was a slight cloudy discharge from the ear. Nevertheless, the writer did not consider the trouble of auricular origin, for there was no appreciable modification in the retroauricular region, and it was not anywhere painful to pressure. There was no swelling over the tip of the mastoid. However, all of the swollen part over the ascending ramus and the body of the jaw was exquisitely painful to pressure. The writer considered the trouble to be without doubt an osteomyelitis of the maxilla. Pus was found around the carious inferior molar. This was the portal of entry of the infection, and the prognosis was very grave. As permission could not be gained at once for operation, it was deferred until the next morning. Incision was made along the border of the inferior maxilla. There was no pus, but two teaspoonfuls of a very fetid, brownish fluid flowed out. The effect of the operation was negative. The local swelling was diminished, but the general infection was not relieved. Death soon followed. The writer thinks that a correct diagnosis, with early operation, would have saved the child, and he urges the necessity of careful attention to a carious inferior molar in a child. Early extraction is indicated if the cavity cannot be perfectly filled.

James M. Beattie sums up his paper as follows: The present position is that an organism with distinctive characters from the ordinary bacteria

with which we are familiar has been isolated from typical cases of acute rheumatism and chorea (which is admittedly rheumatic in character) by different observers. This organism has been cultivated outside the body, by injection into rabbits has produced typical acute rheumatism and chorea and has been recovered from the infected animals. Streptococci, staphylococci, etc., do not produce these effects; and this organism, even when its virulence has been raised, does not, as Poynton and Paine have shown, produce the effects which are obtained by the injections of the ordinary pyogenic organisms. Therefore, the writer believes that he is justified in claiming that if not the only, at least it is one of the causal agents in acute rheumatism. This was the position taken up by Poynton and Paine in 1900. Their position has not been successfully assailed, but has been very much strengthened by further observations, and it seems extremely probable that we shall yet be able to give the micrococcus rheumaticus the place in relation to rheumatic fever which the pneumococcus today holds in relation to pneumonia. The writer thinks it quite unnecessary to deal with a recent objection—that the organism is merely the cause of the terminal phenomena in cases of acute rheumatism.

Crime in lying-in homes is becoming more and more evident in the fact of the increase of the number of such institutions, in the brazen methods pursued in advertising them, and in the insinuated temptations and offers made in letters and circulars. The unblushing openness of the state-

ments as to a "division of the spoils," or fees, shows that these fellows are really, though perhaps not legally, outside the pale of the profession, and that every physician should treat them as, they in fact are, abortionists and participating criminals. From a circular letter addressed to one of our subscribers by the proprietor of one of these institutions, we quote:

"For such cases as demand immediate interference in the early period of pregnancy, whenever in your own and my opinion such steps are indicated, the minimum fee of \$35 does not apply to those who can well afford to pay a fee more in keeping with the requirements of the case. The physician sending such a patient must of necessity give up a considerable portion of his time to the interests of the case, and, in recognition of his services and assistance, I make it a rule to remit to him 20 per cent. of the gross fees received from the patient."

Blackmail and crime is seen in every hint and sentence of this nauseating literature, and the profession is naturally charged by the lay public with instigating or profiting by the breaking of the law. A few prosecutions carried out by the attorneys of medical societies would tend to abate this evil.

Referring to high-frequency applications as a remedy for x-ray burns, S. J. Stewart, of New Orleans, writes the *New Orleans Medical and Surgical Journal*:

"Readers of this *Journal* who are working with the x-rays may be interested in the following experience of my own:

"Some time ago while testing a lot

of tubes, my hands began to show the characteristic effect of prolonged exposure. The skin became red and inflamed, and in a condition resembling a severe sunburn. Out of a spirit of curiosity, I made an application of electricity obtained by passing the disruptive discharge from a static condenser through the primary of a Tesla coil; the secondary discharge from this coil was applied by means of a glass electrode directly to the back of hands and arms, with the immediate result of relieving the burning sensation and causing in a few days a disappearance of the redness. Since then I have several times exposed my hands to just as severe an ordeal, but take the precaution to make the high-frequency application afterward, and have not suffered the slightest inconvenience.

"Just here, as an electrician, I wish to emphasize the fact, that currents of high-frequency and high potential can only be obtained in this way, or by using a Oudin resonator as a step-up transformer. The method sometimes employed of grounding one pole of a static machine and connecting a vacuum electrode to the other and separating the discharge of an electro motive force no higher than the potential necessary to overcome the resistance of half an inch of air. This current can, in no sense, be termed a high-frequency current, and its potential cannot be considered as any higher than that of the machine generating it."

Certain officers of the Public Health and Marine Hospital Service have noticed for some time past, on everting the eyelids of some immi-

grants, that they presented a peculiar blanched appearance. At first it was thought that this was due to the treatment which they might have received prior to the embarkation. Recently, however, several hours after the first inspection was completed and all suspicious cases had been set aside, it was decided to make a re-examination of the entire number. While this work was going on a number of additional cases of trachoma were found. Upon following some immigrants behind a convenient inclosure, they were found to be busily engaged in instilling a substance into their eyes, which subsequent investigation showed to be adrenalin. Experiments with the drug proved that if instilled into the eyes of mild cases of trachoma, practically all evidence of the disease could be obliterated for about a half hour. To sum up, then, it seems that on arrival at port, and just before the medical inspection was made, they had been in the habit of instilling adrenalin into their eyes.

A new charter of the American National Red Cross has been passed by both houses of Congress. This charter, which puts the organization practically under the control of the government, was drawn by two former secretaries of state—Mr. Richard Olney and Mr. John W. Foster. Under it the governing body of the general society is to consist of a central committee of eighteen members. Six of these are to be chosen by the incorporators of the parent organization; when six or more state and territorial societies are formed, these will be entitled to elect six members, and the President of the United States

will also have the appointment of six central committeemen, one of whom he must designate as chairman. This central committee will select from among its members seven to constitute an executive committee. The accounts of the organization must be audited by the War Department.

"Poverty" is the title of a noteworthy book by Robert Hunter, lately published by the Macmillan Company. By the term he means "the inability to obtain those necessities which will permit them to maintain a state of physical efficiency"—a capital definition if the adjective is allowed. By several methods the number in this condition in the United States is estimated to be at least 10,000,000. In 1899 24 per cent. of the inhabitants of New York were compelled to apply for relief, not including those aided by such other means as unions, clubs, private alms, etc. In 1901 more than 2,000,000 male wage earners in the United States were without employment from four to six months. And this in a time and country where prosperity is much bragged about. The numbers of the poor who are so by their own fault and choice, such as the tramp class, are not to be estimated, but are perhaps not over 10 per cent. of the total. Mr. Hunter holds that child labor is in great part the price we pay for cheap goods. To reform, child labor must be stopped, factories and tenements made sanitary, dangerous trades supervised, some sort of insurance for old age, sickness, injury, etc., devised. The relation of sickness to poverty is admirably set forth. It is contended that at least a fourth of the distress

which is manifested in the poor is due to sickness. In New York city it is estimated that 250,000 are constantly sick, two-thirds of whom are disabled. The higher the class of workmen the less sickness, while in the lowest classes sickness in some form is almost constantly present. The reduction of the death rate in New York in 1903 from 20 to 18.75 per thousand meant the saving of 4,500 lives and the prevention of 10,000 cases of severe illness. Preventive medicine is, therefore, the best means of preventing poverty.

A. P. Bedard's and E. I. Spriggs' paper in a British medical journal deals with some results obtained during the prolonged observation of a number of cases of severe diabetes upon various treatments. In these cases daily estimation of the nitrogen, ammonia, sugar, acidity and sodium oxybutyrate were made for periods varying up to three months. The results show that the bad effects, such as nausea, vomiting, weakness, and loss of weight, with the odor of acetone on the breath, which follow a too rapid withdrawal of carbohydrate from the food of a severe diabetic, are associated with precisely the same metabolic changes and symptoms of acid poisoning as in coma itself, to which they are known to sometimes lead. The most prominent result in the urine is a rapid rise in ammonia. The percentage of nitrogen excreted in this form rose in one case in ten days from 7 per cent. to 29 per cent. The alkalinity of the blood falls, and the amount of carbon dioxid in it is diminished. The spontaneous recovery which usually occurs

is accompanied by diuresis, but not by a fall in the proportion of ammonia. The administration of alkali produces the opposite effects to a diabetic diet, as regards the ammonia, and causes a general improvement in the condition of the patient and a disappearance in the odor of the acetone. Although an increase in the quantity of urine follows, there is no marked rise in the excretion of sugar after the first day or two. The alkali was given in considerable doses up to 75 gr. of sodium bicarbonate per day, in milk, in four equal portions. It would seem advisable to use this drug when a patient is being transferred from an ordinary diet to one which is poor in carbohydrate, and especially to a rigid diabetic diet, if such should be desired. The administration of alkali must be watched,

as disturbances of digestion, diarrhoea and edema may be produced. The object of the alkali is attained when the urine becomes neutral. This occurs in a few days in some cases, but in some not for weeks. Opium caused in the cases observed a general diminution in the amount of urine and of its constituents, but none in the proportion of ammonia. Codein was not found to produce any effect on the metabolism. The ferric chlorid reaction was most marked on a diabetic diet, and on an alkali it became less when coma was actually imminent. The odor of acetone is greatest on a diabetic diet, and is diminished by alkali. This sign and the weight of the patient were found better guides to the condition of severe cases than was the amount of sugar in the urine.

COUNTY SOCIETY NOTES.

ST. LOUIS MEDICAL SOCIETY.

REPORT OF THE COMMITTEE ON PUBLIC
HEALTH AND LEGISLATION,
ST. LOUIS, DEC. 17,
1904.

ST. LOUIS, DEC. 17, 1904.

To the St. Louis Medical Society:

MR. PRESIDENT—Your Committee on Public Health and Legislation have the honor hereby to submit their annual report for 1904—the present year being the first one in the history of the society to witness a standing committee of this name and character.

Early in the year a more explicit definition of the powers and duties of the committee under article XVIII. of the by-laws was requested by us,

and this was granted in the form of an ordinance by the society. Acting thereunder a number of subjects of local, state and national concern were brought to the notice of the society as worthy of attention, and some of these were carefully considered last winter and spring.

The local matters thus presented were the public milk supply, garbage collection and removal, enforcement of the law against deposit of sputum in public places, and the medical inspection of public school children; and on these several topics your committee would report as follows:

Public Milk Supply.—As a result of careful inquiry it appears that St. Louis possesses a law covering this

subject that is workable and is applied for the protection of the consumer, the penalties provided for adulteration or other fraudulent practice by dairymen and milk dealers being generally enforced by the courts.

An attempt made in the early part of the year by this class to repeal this law and substitute therefor a measure in their own interest failed, and so far as known, no hostile legislation in this respect is now pending or intended. However, the working efficiency of the city chemist's office for several months past has been seriously embarrassed by the failure of one branch of the Municipal Assembly to authorize the employment of indispensable office help; and at this time no relief appears in sight.

Garbage Collection and Removal.—As will be remembered, litigation in a case appealed to the state supreme court, resulted last year in a decision by that court to the effect that the then existing contract let by the city board of health to a private contractor was void, which necessitated legislation by the municipal assembly to meet the emergency, the outcome of which was the assumption by the city of this work April 1 last, the service being placed in charge of the street department.

It is but fair to remember in this connection that such work, entirely novel here as a municipal undertaking, was almost precipitated on the city and under extraordinary circumstances, the opening date of the Louisiana Purchase Exposition being but one month distant, and in attempting to rightly estimate the value to the public of the city's work in this re-

spect these changed conditions must be kept in mind, as it is probable that the gross volume of garbage to be removed was increased not less than 20 per cent. over the highest figure of any former year by the throngs of visitors to the Fair, the transient daily population being very likely near 100,000.

Being duly authorized, your committee last month sent postal card inquiries to every member of the society requesting an expression of opinion as to the "value to the public of the present municipal service . . . as compared with the work done prior thereto under private contract," it being considered that no other equal number of persons could speak so intelligently on the subject by reason of the fact that a large proportion of the members are constantly passing in all directions through the city, and further because of their opportunities for close knowledge of all transpiring within the households visited that concerns the family health and comfort.

Of the total responses received about 67 per cent. report the present service an improvement over the former arrangement, the commendation often being unqualified and emphatic, but in some instances coupled with suggestions as to further betterment. About 18 per cent. report no improvement over past conditions, while about 15 per cent. express no opinion on the question submitted, either through having no garbage to dispose of, or having methods of domestic disposal, or for other reasons.

Complaint is made of the miscellaneous character of garbage con-

tainers used, of their rough usage by drivers, and of the insolence of the latter; of leaking, over-filled and foul-smelling wagons, and of the streets used by them as main routes for delivery of the loads.

The expression in favor of municipal service as against the former plan is almost unanimous, this opinion being based either on principle or observed practice, although a few maintain that domestic destruction of garbage is the only true course.

The Deposit of Sputum in Public Places.—The law forbidding this practice has undoubtedly worked a very considerable change for the better so far as expectoration on sidewalks, in street cars, etc., is concerned, but the enforcement of this ordinance by the police appears to be inefficient and perfunctory to a degree. Much of the offense arising from this source throughout the year was due to visitors here not informed as to the law. Altogether the effect of this measure on the habits of the home population has been educational and salutary.

Medical Inspection of Public School Children.—No progress has been made towards bringing about this important sanitary innovation, the hearing granted to this committee last spring by the committee on instruction of the board of public schools being void of fruitful results. It seems clear that history must repeat itself and that here, as elsewhere, numerous children must die of infectious diseases communicated during school hours before this reform can be accomplished.

In state affairs the principal concern that has engaged the attention of

the committee is the forwarding of of the project for a state sanatorium for persons in the earlier stages of consumption, this work being a direct inheritance from a special committee formed in 1902, which was authorized to press the subject upon the attention of state officials and the general assembly in every proper manner. This was done, but unsuccessfully, as the event proved.

Under authority of the resolutions passed by the society on the 5th ult., the committee has mailed copies of said resolutions to every medical society in the state whose address could be found, to the councillors of the Missouri State Medical Association, to the members of the state board of health and every health officer in Missouri, and to the home address of every member of the senate and house of the forty-third general assembly in anticipation of the meeting of that body next month. In addition, special letters were sent to the governor and governor-elect, inviting their attention to the matter; and further personal letters were sent to all the medical members in both houses asking their special consideration of the promised bill, so that the ground has been pretty well prepared in a preliminary sense for our successors in this work. So far as ascertained, the sentiment of the medical profession in all parts of the state is as a unit in favor of the action recommended.

It is the belief of this committee that this movement would command a wider general support if the proposed institution were advocated as constituting in fact an important addition to the educational resources and teaching equipment of the state,

rather than presented in the guise of a hospital, or as being in any sense of a strictly medical character.

A bill is now before congress for "preventing the adulteration or misbranding of foods and drugs, and for regulating traffic therein, and for other purposes," which passed the house last session (where it was known as the Hepburn bill) and is at this time pending in the senate (where it is known as the Hepburn bill).

It has been materially amended since it passed the house and has been under discussion within the last ten days, but some opposition appears to have been developed, and the outcome is uncertain.

It seems to be a measure framed in the public interest, and no reason is evident why this society should not urge the Missouri senators to give it their support, and the committee would so recommend as this matter was referred to them for investigation and report.

All of which is respectfully submitted.

GEORGE HOMAN, M. D.,
R. M. FUNKHOUSER, M. D.,
F. L. HENDERSON, M. D.

ANNUAL REPORT OF THE RECORDING
SECRETARY OF THE ST. LOUIS
MEDICAL SOCIETY OF MIS-
SOURI FOR THE YEAR
1904.

To the Members of the St. Louis Medical Society:

The distractions and privileges of a World's Fair year are quite as evident in the work of our society as in any other phase of St. Louis life. The society held fewer meetings than in 1903, having held thirty-five regular

meetings and one special meeting. The attendance suffered because of the numerous and various outside interests of the year; the total attendance at all meetings was 1,456, giving an average attendance, since my last report, of a slight fraction under forty. This is somewhat less than in 1903, but above the average for recent years.

At the meetings forty-three papers and addresses have been presented, and pathologic specimens and patients have been presented at eighteen meetings. One hundred and thirty-six discussions of papers, cases and specimens are recorded. The scientific programs have been of exceptional excellence throughout the year, but it has been ours to be especially privileged in having with us numerous American and foreign medical authorities, who were brought to our city by the Fair, and the various association meetings held here during the year. Among those who have addressed the society on the regular program were Prof. K. Mitsakuri, of the Imperial University of Japan; Prof. Dr. W. P. Dunbar, of Hamburg; Prof. Dr. A. Wasserman, of Berlin; Mr. J. R. Taylor, Chief of Laboratory of Los Animas Hospital, Havana, Cuba; Drs. W. W. Keen and Chas. K. Mills, of Philadelphia; Drs. Chas. L. Dana and Robt. Abbe, of New York City; Dr. Maurice Richardson, of Boston, and Drs. H. N. Moyer, W. T. Eckley, A. P. Matthews, A. J. Ochsner, of Chicago, and Dr. McMurtry, of Louisville.

A considerable number of the local profession, who are not members of our society, have participated in our progress, and it occurs to your secrete-

tary that an active campaign should be inaugurated to bring them into the fold.

The growth of the society during the year has been normal, though not so decided as had been hoped. There have been eighty-four nominations for membership. Of this number, fifty-nine have become members; one was rejected by the elections committee, and one by vote of the society. Of the twenty-three not accounted for, a few will be balloted on at our next meeting, but a majority have failed, in spite of repeated notices, to appear before the elections committee.

The society has lost four members by withdrawal during the year and three by death, the latter Drs. John Gilwee, T. F. Prewitt and E. E. Webster.

The roster of the society shows that we now have 427 associate members, of whom fifteen are on the delinquent list. The smallness of our delinquent list should be a matter of great satisfaction to the society. There are eight honor members.

In the early part of the year the society revised its constitution and by-laws to bring the same in conformity with the laws of the state association. The revision committee and the recording secretary spent considerable time over the matter of revision, and, while there are still some points which may at a future day be slightly changed, the laws, as they now stand, are much nearer perfect than any we have had in some years.

I have discovered that several members have removed from the city without notifying the society or applying for withdrawal cards, leaving us to

carry them until we find it convenient to suspend them. At the same time it develops that they are received into the county societies where they locate. It would seem that all county societies should require at least a clearance card from a former location before they accept members coming to them. At the present time there are members on our delinquent list who are in good standing with a county society and with the state and national associations. This should be impossible.

The revised by-laws have so materially increased the duties of the recording secretary that the position has ceased to be one which can be considered desirable as an honorarium. It has been impossible for me to make time to do all the work required by our laws, and when this developed, I presented the matter to the society and was excused from a part of the duties. I, myself, believe that this is a bad precedent and should not be allowed in the future.

The society has also voted to the recording secretary the duty of reporting the meetings in the *State Society Medical Journal*. This work I have not done as it should have been done, largely because so many other duties interfered. In behalf of my successor I would suggest that this duty be placed in other hands.

In closing the year, your recording secretary wishes to express his appreciation to the members of the society and to all those who have helped to make his work, which is somewhat arduous at best, very much a pleasure.

Respectfully submitted,

T. A. HOPKINS, Secretary.

December 17, 1904.

RANDOLPH COUNTY MEDICAL SOCIETY.

Dr. D. A. Barnhart, President.
 Dr. G. W. Nichols, Vice-President.
 Dr. S. C. Adams, Secretary.
 Dr. O. O. Ash, Delegate.

The Randolph County Medical Society met in regular session December 13th at Higbee, Missouri, Dr. D. A. Barnhart in the chair. The minutes of the last meeting were read and approved. Dr. Johnson read a paper on "Pneumonia." Enthusiastic discussion followed. Dr. Johnson was elected a member of the society. There being no further business, the society adjourned to meet in Moberly, Missouri, on January 9, 1905.

JASPER COUNTY MEDICAL SOCIETY.

Dr. R. L. Neff, President.
 Dr. J. D. Pifer, Secretary.
 Dr. C. W. Miller, Treasurer.

The Jasper County Medical Society met in regular session at the Y. M. C. A. building, with Dr. Neff in the chair. Dr. Shelton read a paper on "Syphilis of the Nose," giving a description of the different manifestations of this disease in the nasal passages. His paper was fully discussed by all members present. Dr. Stamey then read a paper on the "Administration of Potassium Iodide," which was also discussed.

The secretary then read resolutions and a letter from the St. Louis Medical Society asking our co-operation in an effort to secure legislation in the form of an appropriation for the erection of a state sanitarium for the care of tubercular cases. Dr. Grantham moved that we endorse the enterprise and advise the secretary of

the St. Louis Medical Society of our co-operation; and also that we draft resolutions petitioning our members of the state legislature to assist in the passage of the bill. Motion carried.

Dr. Freeman requested all doctors to report cases where persons were known to be practicing medicine illegally, that he might turn the names over to the prosecuting attorney. Dr. Freeman introduced the following resolution:

"Resolved, That we, as members of the Jasper Medical Society, recommend Dr. P. L. Freeland, late of Joplin, Missouri, now of Baxter Springs, Kansas, to the physicians of Kansas as an ethical, competent physician, and in every way a gentleman, and that the secretary of this society is hereby instructed to mail to Dr. Freeland a copy of this resolution."

The resolution was adopted by the society.

Dr. R. M. James, of Joplin, Missouri, applied for membership, and his application was referred to the board of censors.

The president appointed the following gentlemen to arrange for the annual banquet in February: Drs. Matthews, Grantham and Freeman.

C. C. CUMMINGS, Reporter.

AUDRAIN COUNTY MEDICAL SOCIETY.

Dr. C. A. Rothwell, President
 Dr. E. S. Cave, Secretary-Treasurer.

The Audrain County Medical Society met in regular session Monday evening, January 9th, at the office of Dr. Cave, Mexico, Dr. Robert W. Berry presiding. The minutes of the previous meeting were read and approved. Dr. Paul E. Coil read a very

entertaining paper on "Croupous Pneumonia." Discussion of the paper was general. This being the annual meeting, election of officers was next in order. The successful candidates were as follows: President, Charles A. Rothwell, Mexico; vice-president, R. L. Alford, Vandalia; secretary-treasurer, E. S. Cave, Mexico; member of board of censors, to serve three years, Paul E. Coil. The next meeting of the society will be held Monday evening, February 6th, when Dr. E. S. Cave is to read a paper.

C. A. ROTHWELL, Reporter.

CURRENT RIVER MEDICAL SOCIETY.

Dr. Frank Hyde, President.

Dr. J. A. Chilton, Secretary-Treas.

The November meeting of the Current River Medical Society was postponed to December 21st, when a short and interesting program was rendered, followed by the annual election of officers, which resulted as follows: President, Frank Hyde, Eminence; vice-president, T. B. Younger, Birchtree; secretary-treasurer, J. A. Chilton, Van Buren; reporter, J. A. Chilton, Van Buren. The society adjourned to meet at Birchtree, February 7th. FRANK HYDE, Reporter.

RALLS COUNTY MEDICAL SOCIETY.

Dr. O. B. Hicklin, President.

Dr. T. J. Downing, Secretary-Treasurer.

The Ralls County Medical Society met in regular session at Perry Thursday evening, January 12th, Dr. Robert E. Suter in the chair. The minutes of the previous meeting were read, approved and ordered made a part of the society records. New members

were elected in due form as follows: Drs. F. M. Moore, A. M. Miles and Samuel W. Downing, of Perry, and Dr. W. F. Waters, of New London. Dr. C. H. Groves, of Center was elected reporter, and Dr. T. J. Downing, of New London, delegate. The rest of the evening was given up to a general discussion of "Pneumonia and Its Treatment." The subject proved a most interesting one, and every member present felt that he had profited greatly through the discussion. Many interesting papers are promised for the April meeting. There are now in Ralls county only three practitioners who are not members of the society, and we feel that by April first there will be at least one county in the state solidly organized, that in Ralls county every legitimate practitioner will be a member of our county society.

T. J. DOWNING, Reporter.

HOLT COUNTY MEDICAL SOCIETY.

Dr. B. T. Inigley, President.

Dr. J. F. Chandler, Secretary.

Dr. S. W. Aiken, Treasurer.

The first quarterly meeting of the Holt County Medical Society was held at Maitland on the 3d inst. Dr. Kaltenbach presented a paper on "Observations on Mastication." To exemplify some salient features of the development of the maxillary bones of primitive man Dr. Kaltenbach exhibited bones (taken from the burial grounds in New Mexico), presumably Aztecs, and doubtless 2,000 years' history connected thereunto. Dr. Bullock read a paper on "Dermoid Tumors; Report of a Case," and exhibited a fine specimen removed by him. Both papers were highly appreciated

by the members present, the authors having shown great care in the preparation of the same. The next regular meeting will be held at Mound City, first Tuesday in April.

J. F. CHANDLER, Reporter.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. H. C. Vaughn, President.

Dr. A. M. Wood, Secretary.

The Shelby County Medical Society met in regular session December 22, 1904, in the office of Dr. H. C. Vaughn, at Shelbina. As "something better" had been promised, other business was dispensed with except the election of officers for the ensuing year, which resulted as follows: President, H. C. Vaughn; vice-president, William Carson; secretary-treasurer, A. M. Wood; delegate, William Carson; censors, W. W. Owen, F. K. Roy, Alex. White. The society then repaired to the banquet hall, where a sumptuous feast was spread, with Dr. J. D. Smith as "toastmaster." Each one present responded. "The Missouri Doctor," by Dr. Dallas, and "Memories of Some Old Friends," by Dr. Vaughn, were especially enjoyed. The presence of and talks by the visiting physicians, Drs. Brown and McNutt, of Monroe, were appreciated and enjoyed by the society. "Many good cigars were smoked and many experiences and stories told, that made each one proud and happy that he was in the fold." The society then adjourned to meet in March, when several papers have been promised to be read.

A. M. WOOD, Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. R. H. Goodier, President.

Dr. Janet Reid, Secretary-Treasurer.

The Marion County Medical Society met in regular session, President R. H. Goodier in the chair. Dr. Janet Reid presented a patient to the society, a woman who six months ago had a slight injury to the back of the head. Shortly afterwards there developed a swelling at the point of injury, which has persisted with variations up to the present. It is more painful to the touch, and causes more or less suffering. Most members thought it connected with the pericranium. Dr. C. T. Hornback read a paper on "The Pupil," which was enjoyed by all present. While it dealt with a special subject, it was still of interest to the general practitioner. H. L. BANKS, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. H. E. Tatum, President.

Dr. C. A. Jennings, Secretary-Treasurer.

The Chariton County Medical Society convened at the residence of Dr. I. H. Baker, Salisbury, on December 29th. Among the visiting physicians present were Drs. L. A. Bazan and Bradley Anderson. After reading the minutes of the preceding meeting, which were approved, the society proceeded to the election of officers. The result was as follows: Harry E. Tatum, president; Wilford L. Baker, first vice-president; C. H. Temple, second vice-president; C. A. Jennings, secretary-treasurer; W. L. Baker, reporter. The board of cen-

sors as now constituted consists of Drs. J. F. Welch, W. L. Baker and Isaiah Knott. Resolutions relative to the appointment of a board of health by the county court were reported by Dr. J. D. Brummall and unanimously adopted.

Dr. J. F. Welch read an interesting, instructive paper on "Infantile Inanition Fever." Enthusiastic discussion followed; the doctor's treatment was generally commended and the hope was expressed that the paper might lead to closer investigation of this common condition. Dr. Brummall reported a clinical case which proved very interesting.

The society adjourned to enjoy the hospitality of the physicians of Salisbury, Dr. and Mrs. Baker acting as host and hostess. At the next regular meeting, to be held in Salisbury, Thursday, January, 26th, papers will be read by Dr. Austin on "Scabies," and by Dr. Knott (subject not announced).

C. A. JENNINGS, Reporter.

MISSISSIPPI COUNTY MEDICAL SOCIETY.

Dr. P. P. Boggan, President.
Dr. W. P. Howle, Secretary.
Dr. A. W. Chapman, Treasurer.

The Mississippi County Medical Society met in Charleston, Missouri, January 2, 1905, and elected officers as follows: President, P. P. Boggan; vice-president, John E. Rowe; secretary, W. P. Howle; treasurer, A. W. Chapman. The president and secretary were authorized to sign the petition for the incorporation of the

American Medical Association. The following changes were made in our by-laws: First, we elect officers now once instead of twice a year; second, we meet now only in Charleston instead of "most any old place." We meet only quarterly instead of monthly; third, our regular meetings are to be held the first Monday nights in March, June, September and December; fourth, four members now constitute a quorum instead of five; fifth, a motion to adopt the constitution and by-laws as recommended by the state and national societies was lost.

W. P. HOWLE, Reporter.

CALDWELL COUNTY MEDICAL SOCIETY.

Dr. C. C. Leeper, President.
Dr. Tinsley Brown, Secretary-Treasurer.

The Caldwell County Medical Society convened in Masonic Hall, Brainerd, January 4th, Dr. C. C. Leeper in the chair. After the invocation by Rev. Knight the following papers were read, each being liberally and enthusiastically discussed; "Pelvic Abscess Complicating Pregnancy," by Dr. Tinsley Brown; "Follicular Tonsillitis," by Dr. G. S. Dowell; "A Case of Lung Trouble Complicated with Phlegmon of Both Legs," by Dr. B. F. Carr. Dr. G. W. Grove, of Kansas City, gave a fascinatingly interesting and instructive talk on diseases of the ear. The attendance, considering the inclement weather, was very good. The next meeting will be held at Breckinridge, April 5th.

TINSLEY BROWN, Acting Reporter

JACKSON COUNTY MEDICAL SOCIETY.

Dr. R. T. Sloan, President.
Dr. M. Goldman, Secretary.
Dr. L. W. Luscher, Treasurer.

The annual meeting of the Jackson County Medical Society was held on December 8, 1904, Dr. J. W. Kyger in the chair. The greater part of the time was taken up by the reports of the various committees, the annual address by the retiring president and the election of officers for the year 1905. The report of the secretary, Dr. E. L. Chambliss, showed in a very gratifying manner the growth and progress of our county society in the past year. The election of officers resulted as follows: President, Dr. Robert T. Sloan; vice-president, Dr. Edward H. Thrailkill; secretary, Dr. Max Goldman; treasurer, Dr. Louis W. Luscher. Delegates to the state association: Dr. E. H. Thrailkill, Dr. E. L. Chambliss, Dr. F. L. Cook of Blue Springs; Dr. H. E. Pearse.

The Jackson County Medical Society held its regular meeting on Thursday, December 22, 1904, Dr. R. T. Sloan in the chair. The scientific program consisted of the presentation of clinical cases, and several reports of cases. A number of applications for membership were received. The case presented by Dr. J. Block, one of aortic aneurism, proved to be of unusual interest, both in its history and in the signs and symptoms present; it was of special value from the standpoint of diagnosis. Dr. William Frick presented a case of recurrent onychia, involving all the nails of both hands and the nails of the big toes of both

feet. The discussion following the report of this case brought up, especially the question of etiology. Dr. C. Lester Hall reported two cases of ovarian cyst, one simple and benign, the other malignant. Four cases of acute colitis, due to colon bacillus infection, were reported by Dr. E. R. Curry; all the cases occurred in one family; three proved fatal and one recovered. In the discussion which followed great emphasis was placed on the importance of early discovering the source of infection.

At a regular meeting of the Jackson County Medical Society, January 12, 1905. Dr. E. von Quast read a paper entitled "Goitre, Its Surgical Treatment," in which were considered, among other things, a number of the various surgical interferences, and a summary of the operations described and recommended by the essayist. Dr. F. W. Rathbone read a paper entitled "The Use of Medicine in the Treatment of Goitre," very thoroughly covering the therapeutics of the disease; he spoke not only of the drugs formerly used, but also considered the newer agents employed in the treatment of this disease. The discussion of these papers was opened by Dr. Robert M. Schauffler, a large number of the members present also taking part. At this meeting the society heartily indorsed the resolutions of the St. Louis Medical Society, favoring the establishment of a state sanatorium for the care of cases of incipient tuberculosis, and adopted means to co-operate with that society in their efforts along this line.

MAX GOLDMAN, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. A. W. Moore, President.

Dr. C. W. Watts, Secretary-Treasurer.

The Howard County Medical Society met in Fayette, January 17th, Dr. A. W. Moore presiding. The minutes of the November meeting were read and approved. Resolutions regarding the building of an institution for the care and treatment of cases of incipient tuberculosis were presented through Dr. Geo. Homan of the St. Louis Medical Society. They were generally discussed and then endorsed by the society. The opinion was very freely expressed that nowhere in the state can there be found so nearly an ideal situation for this institution as down here in Southwest Missouri where we have such glorious pure fresh air and where nature has done so much to delight everyone with her deep blue skies and her ever-varying and charming scenery; where it is always a pleasure to be out in the open air and life-giving sunshine. Drs. U. S. Wright, C. H. Lee and C. P. Magee were appointed a committee to act for the society in all matters pertaining to our interests in this proposed institution. Dr. Ward presented a paper on "La Grippe and Its Complications." This paper was especially enjoyed for

its historical features. Drs. U. S. Wright and C. W. Watts presented a most interesting clinic, including cases of pneumonia, la grippe, catarrhal fever and pericarditis. The society changed its constitution and by-laws to make them conform with those of the Missouri State Medical Association as regards the beginning and ending of the fiscal year. The committee on program and scientific work were requested to furnish papers for the February meeting. The society adjourned to meet on the 21st of February.

C. W. WATTS, Reporter.

DAVIESS COUNTY MEDICAL SOCIETY.

Dr. J. D. Dunham, President.

Dr. M. A. Smith, Secretary-Treasurer.

The Daviess County Medical Society held its regular quarterly meeting in Gallatin, January 17th, Dr. Dunham presiding. The attendance was unusually large and although there were no papers read, the discussion on "Injuries to the Brain" was general and enthusiastic. Two new members were enrolled and officers for the ensuing year were elected. The delegate will be appointed at the next regular meeting, to be held on the 11th of April.

H. A. SMITH, Reporter.

ABSTRACTS.

Notes from the Philippines.—At the November meeting of the Manila Medical Society a case of amoebic cystitis was reported by Dr. J. R. McDill. If the cases of amoebic cys-

titis due to rectovesical fistula are excluded, a perusal of the literature on this subject shows that this is a very rare condition and that few cases have been made a matter of record.

The case in question came under observation on account of some abdominal symptoms which were afterwards attributed to floating kidney. The infection is supposed to have been contracted from an unclean catheter which was used on the patient by a careless attendant. The treatment consisted of bladder irrigations of a 1-1000 quinine solution, soon after which all traces of amoebæ in the urine disappeared. At the same meeting a paper was read by Dr. R. P. Strong, director of the government biological laboratory, entitled "Some Questions Relating to the Virulence of Microorganisms, with Particular Reference to Their Immunizing Powers." The conclusion reached was that the virulence, as shown by experiments on animals, was not in direct proportion to the dose injected.

The experiments were all made with the cholera organism, and the writer expressed the hope that others would take up this work with other bacteria with the view of ascertaining whether the same results would be reached. Another paper was read by Dr. Paul G. Woolley, entitled "A Case of Sarcoma of the Eye Involving Chiefly the Ciliary Body." This was a primary sarcoma of the eye due to an injury. The condition is rather rare, according to the author of the paper. A number of excellent photomicrographs were exhibited to illustrate the case.

The construction of the new government laboratory building, of which mention has been made in these columns from time to time, has advanced sufficiently far to permit of its being occupied by a number of branches of the bureau of government laborato-

ries. The lighting and power plant has not yet been installed and the numerous carpenters and other workmen who are engaged around the building make its inspection rather unsatisfactory at present. There is little doubt, however, that when completed this will be one of the foremost institutions of its kind in the world. It will offer opportunities for research work which can scarcely be equalled by any American institution, and when the opportunities for obtaining virgin material are added to this it will be seen what a splendid promise the future holds forth. The bureau is composed at present of the following divisions: (1) A serum laboratory at which are manufactured vaccine virus, rinderpest serum, etc. (2) A library in which are to be stored and catalogued all the scientific books in possession of the government. (3) A well-appointed chemical laboratory. (4) An entomological division, which has already done good work in the study of the insects which were destroying the cacao plants of the islands. (5) A biological laboratory, which gives much promise for the future. (6) A botanical division. The large number of plants which remain unidentified gives this division a large field in which to work. There are a number of other branches of the bureau, but they can scarcely be dignified by the name of division, as for instance the branch which takes the photographs for all departments of the government. It has also been proposed to incorporate a division of weights and measures, the necessity for which has already been felt. The superintendent of government laboratories, Paul C.

Freer, formerly professor of chemistry at the University of Michigan, is at present in the United States on a leave of absence. Dr. R. P. Strong, the director of the biological laboratory, is acting in his place.

The outbreak of smallpox at various points of the islands still continues. The situation, as nearly as can be ascertained, remains about stationary. No other quarantinable diseases are reported in the islands at the present time. A particularly discouraging factor with which the board of health has to deal is the continued high death rate in Manila. The last report issued shows this to be 55.28 per 1,000. It was confidently expected that, when the large number of deaths due to cholera could be eliminated, the mortality would show a decided improvement, but that such was not the case is shown by the fact that there has been no cholera reported in the city of Manila for more than six months, and yet the percentage of deaths is as high, and some months even higher, than during the cholera epidemic. It was also thought that the population as given by the official census of 1903 (219,941) was entirely too low, and therefore the death rate calculation as rendered was erroneous, but a police census which was recently completed shows that the present population does not exceed the figures given by the official census. Smallpox was another disease the deaths from which cause mortality statistics to remain high, but no deaths from this disease have been reported for a number of weeks and still the percentage refuses to drop. The greatest number of deaths is, of course, among infants under one year

of age. When the utter lack of knowledge of how to take care of children, and the poor physiques of the Filipinos as a class are considered, it is difficult to see how any great improvement is to be expected in the near future.—*Medical Record*.

Lines of Advancement in the Treatment of Malignant Disease.—Robert Abbe, in the *Medical Record*, points out the lines of advancement in the treatment of malignant disease. Undoubtedly, he says, gain has been made in three notable directions, viz., (1) In the recognition of the principle that carcinoma and sarcoma are primarily of local origin. This makes the cure almost certain when very early operation is done. (2) In recognizing the enormous value of increasingly extensive operation in advanced cases, widening the field of skin removal and lymphatic dissection. (3) In establishing the value of radio-therapy. Apart from these we have to record attempts to utilize serum therapy-antitoxin and tissue metabolism by oophorectomy (Beaton's method) and thyroid extract administration. Too much stress cannot be laid upon the importance of the sarcoma, the value of which has been so often emphasized by every writer. The fact, however, is to be deprecated that there are still constantly presented to the surgeon today many cases operated upon by men who do but little surgery, and allow themselves to remove small mammary tumors without taking away the breast, or to amputate the breast without excising the lymphatics of the axilla, or pectoral muscles, or if these are done with a show of

thoroughness, then to incise the skin near the tumor within the margin of safety, so as to make easy suture of the skin possible, paying more attention to the cosmetic effect than justified. It is in these cases which constitute such a vast majority of recurrences that the margins of the scars are the first and often the only site of return of disease. This puts emphasis on the value of wide removal of skin and extensive skin grafting at the primary operation, and it is this the author believes that has made the great advance in mammary operations. In cancer of the stomach, however, it is not clear that it is wise to tax the resources of surgery to do those elaborated operations which are possible, but so often fatal, and so fruitless of permanent benefit—a triumph of surgical art which is not a triumph over disease is not one to boast of—and this sentiment so far prevails that most operators are content with the simple, safe and admirable posterior gastroenterostomy in restoring digestive functions as far as the diseased condition ever will permit.

Advanced cancer of the tongue early recurs, and this, together with the deplorable condition of the mouth after removal, leads us to look for help to radiotherapy.

Three methods of treating malignant diseases through systemic and what might be called alterative measures have commanded much public attention. They are serum-therapy, antitoxin treatment and oophorectomy. The use of serum awaits the report of the French surgical commission to establish claim to consideration of the more conspicuous use

of the principles of bacteriotherapy with the toxins of the erysipelas coecus, both with and without the bacillus prodigiosus, to defeat the growth of malignant tumors. There have been enough well-recorded cases to establish the fact that a very small proportion, and these of unusual types of sarcoma, retrograde or disappear. Extraordinary changes are seen to result from removal of the ovaries in cases of mammary cancer. The tumor, having been demonstrated to be malignant, will often retrograde and sometimes disappear, though not usually permanently. In eight cases afflicted by hopeless mammary cancer, in which the author removed the ovaries, all but one showed distinct retrograde changes, with prolongation of life; but death occurred ultimately from the disease in all but one case. In the most remarkable of these cases one tumor the size of a hen's egg and eight small cutaneous nodules disappeared entirely within eight weeks of the oophorectomy. In radiotherapy is furnished an external stimulus, which adds a measure of strength and control to the vital spark left in the decadent cells of the morbid growths. The outcome of the application of radiant energy has been many tumors dissipated, some unaffected, occasional recurrences and a few cures. The Roentgen ray, radium and Piffard lamp emit somewhat the same influence and excite a grade of local irritation not at all like inflammation of usual type. Radium, notably, sets up a brawny change when displaying its severest energy, resembling urticarial wheals, which is supplanted by a curative action. It alone can be used in deep structural disease, bone and

other tumors, where it may be buried for hours or days, according to its strength. From radium, therefore, we may expect the greatest future results. As yet few applications in deep growths have been made, owing somewhat to the reluctance of those who possess strong specimens, of which there are but few, to experiment on patients whose only hope has seemed heretofore to be in an operation. There is promise of a large production of strong radium in Austria, and the next year will reveal further fruits of research and treatment.

Pruritus Ani, Treatment of.—The writer limits the term *pruritis ani* to a condition characterized by intense itching about the lower orifice of the bowel. *Pruritus* is often a symptom, sometimes an essential disease. The possible etiological factors of this affection are numerous. It is often found in the gouty and in those who suffer from disorders of the digestive and chylipoietic apparatus. Shellfish and strawberries sometimes give rise to it, also tobacco. Piles, constipation, fissure, ulceration, foreign bodies and irritating discharges from the bowel or neighboring parts sometimes give rise to it. Cutaneous diseases, such as eczema, may produce the symptom. It is said that the most important predisposing cause is hyperæsthesia. General diseases producing it may be idiopathic neuroses, such as hysteria or hypochondriasis or other affections of the nervous centers. Although *pruritus ani* may occur at any age, there is a certain relation of particular causes to particular ages. Thus, in children the itching is likely to be due to worms. The

patient generally seeks relief in violent scratching, and thus secondary lesions develop.

Pruritus ani is often very refractory to treatment. The first thing to do is to seek for the cause and remove it or neutralize its action. The treatment must be appropriate to the cause. In all cases it is well to regulate the bowels and recommend a bland but nutritious diet. Rich foods and alcohol should be forbidden. Short courses of calomel in small doses are useful. Tonics are indicated if the patient is depressed, with a poor appetite and failing nutrition. Thorough flushing of the system with large quantities of weak alkaline waters is often a powerful aid to local treatment. The most scrupulous cleanliness must be enjoined. The application of hot water, as hot as can be borne, is a very efficacious method. Some patients prefer very cold water. After bathing, a soothing or cooling remedy should be applied.

Local remedies may be classified as anodyne, antiseptic and caustic. Cocaine may be used in the form of a suppository, but care should be taken that the patient is not allowed to use this remedy too freely. Menthol is cooling. A strong solution of bicarbonate or bisulphate of soda applied in a poultice is an excellent sedative. Carbolic acid often acts like a charm. Oil of cade is useful. The local application of calomel is highly praised. The calomel stops the itching at once, according to the advocates of this method. Nitrate of silver is sometimes used. The patient should be kept cool in bed. Hypnotic suggestion has been tried with success. Electricity is said to have given good re-

sults. It is well, after bathing the parts, to apply a powder like bismuth, oxide of zinc and starch or orthoform. However, each case must be studied as a distinct problem.—Malcolm Morris in *Monthly Cyclopædia of Practical Medicine*.

The Gonococcus as a Cause of Disease.—Before Neisser's discovery in 1879 an attack of gonorrhea seemed a trivial matter, and the cessation of the discharge was hailed, both by patient and physician, as the termination of the disease. Now we have learned to know better, and are gradually realizing that the gonococcus is one of the most destructive and baneful organisms which infects the human economy. Unless persistently combated from the start, it is liable to extend to the deep urethra, the prostate and seminal vesicles in the male, and to the uterus, tubes and ovaries in the female, giving rise to disorders which only too frequently persist for a lifetime. There is no doubt that renal disease is often due to gonococcal infection, and the frequency of gonorrheal affections of the joints is only now being properly understood. It is scarcely necessary to mention how many eyes have been sacrificed to gonorrhea.

Unfortunately, our medical literature in recent years shows that gonorrhea is not by any means uncommon in the very young. It is startling to read the statistics of dispensary physicians in what has been called the "red-light" district of New York, and it is to be hoped that the spirit of prudishness, which has been one of the greatest obstacles to efficient prophylaxis in this country, will soon

yield to a more liberal spirit, leading to the adoption of some practical means of greatly diminishing the spread of the disease.—*International Journal of Surgery*.

Digestion, Mixture of Digestive Juices with Bile In.—Boldyrieff (Roussky Vratsh, October 2, 1904,) found, as the result of a long series of experiments on dogs, that if the diet contains a great deal of fat, if there is an excess of acids in the stomach, or if the animal is allowed to starve, a stream, consisting of a mixture of pancreatic and intestinal juices with bile, enters the stomach. This fact may probably be utilized for obtaining pancreatic and intestinal juices in man for the purpose of diagnosis. When fatty food is ingested, digestion probably takes place largely through the aid of the ferments of the pancreatic juice. When examining the stomach contents or specimens of vomited matter, it should always be remembered that pancreatic and intestinal juices may be mixed with the sample under consideration. The absence of free hydrochloric acid and of pepsin ferment in the stomach contents may be noted even in perfectly healthy stomachs after test meals, provided the hydrochloric acid has been neutralized completely by the alkalies of the pancreatic juice, and the pepsin ferment has been hampered in its action by the presence of bile. In investigating the motility of the stomach by means of test meals, the possibility of the entrance of pancreatic and intestinal juice and of bile into the stomach must be taken into consideration, thus increasing the amount of fluids found therein after

a certain time. In examining the gastric motility by means of salol, it will be necessary hereafter to take into account the decomposition of salol by the pancreatic and intestinal juices in the stomach. Gastric digestion is by no means so simple as had been hitherto supposed.—*Monthly Cyclopedia of Practical Medicine.*

Digitalis as Cause of Cardia Dissociation.—The graphic tracings and post mortem findings of a case are given to show the danger of routine treatment of heart affections with digitalis. The clinical diagnosis was rheumatic endocarditis and endarteritis on an alcoholic basis. After each dose of digitalis the action of the right heart became much stronger, while that of the left heart became weaker. Such a disturbance in the coordination could not be explained only by changes in the right coronary artery which prevented it from contracting. The right ventricle was stimulated to excessive action. The left ventricle was unable to take charge of all the blood delivered by the right, and dyspnoea and oedema indicated the disturbed compensation. These phenomena could be explained only by assuming that digitalis had an exaggerated action on the right heart, which would be the consequence of dilatation of the right coronary. The clinical assumption that the right coronary was dilated was confirmed by the post mortem findings of sclerosis and a lumen fourteen millimeters in diameter, while that of the left coronary was only eight millimeters. Pharmacological dissociation, resulting from degeneration of the right coronary artery,

has been observed by the writer in two previous cases. The curves show the weak pulsation of the left ventricle and the excessive act of the right. The duplicated pulse in the jugular vein was probably attributable to an accessory contraction of the right auricle. Dissociation of the heart action can be studied at the bedside more instructively than on animals' hearts.—T. von Openowski in *Berliner Klinische Wochenschrift*, Vol. xli, No. 40; from *Journal of the American Medical Association.*

Excision of the Cecum in a Child.—At a meeting of the Chicago Surgical Society, February 2, 1903, Dr. Jacob Frank presented a child nineteen months old. He said that twelve months ago he was called at 11 o'clock at night to see the child, and found it in a critical condition. The history given by the mother was that the child had always been a "colicky" baby. The child had been playing on the floor, when suddenly it was seized with a severe pain, vomited, and passed blood, after which it became very ill. He made a diagnosis of intussusception. The mother took the child to the hospital, and at 2 o'clock in the morning he opened the abdomen. In examining the coils of intestine he did not find what he thought was a recent intussusception, but in making a further examination he came upon the appendix, which seemed as though it were binding the cecum down. He removed the appendix, and in following the cecum he found it was a hard mass. He therefore resected the entire cecum, making practically two operations. He used one of his absorbable bone

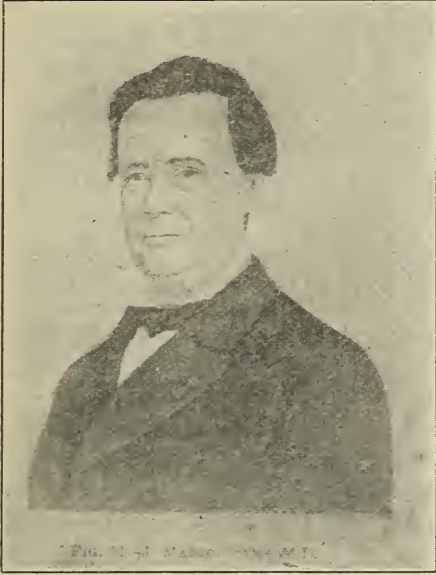
couplers in making the intestinal anastomosis, and removed the stitches at the end of seven days. In ten days the child left the hospital. The child was now in perfect health. The specimen was exhibited.—*Annals of Surgery*.

Clubfoot, Early Treatment Of.—Most writers on this subject advise beginning treatment as early as possible; at birth or soon after. The author differs from this view and doubts the advisability of instituting treatment at this early stage, and prefers waiting until the child is able to walk. Appreciating the ossification periods and all the arguments advanced in favor of early treatment, yet he is not convinced that enough is gained to justify the continued interference with the nutrition of the child at the time when every effort must be directed to perfect the infant feeding and hygiene. The excoriations, strained tendons and ligaments must surely inhibit digestion, and if digestion is inhibited nutrition cannot satisfactorily proceed. Although he declines to treat clubfoot in young infants until they are able to walk, he does not infer that nothing ought to be done during the first eighteen

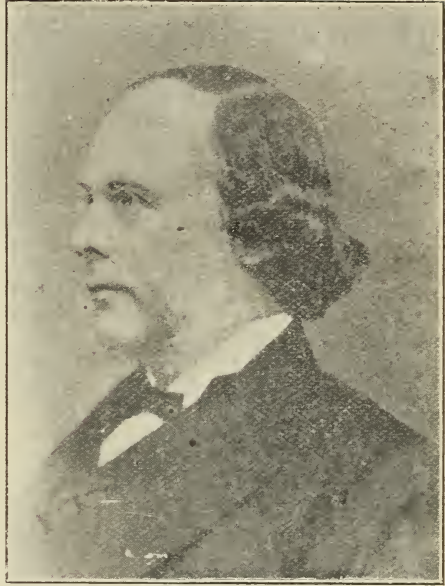
months. The severe forms of treatment should be mitigated, as it is well known that a large number of cases of moderately high degree are corrected by the hand of the mother. This good work should merely be supplemented by simpler forms of apparatus.—V. P. Gibney in *Monthly Cyclopadia of Practical Medicine*.

The Expired Air of Phthisical Patients.—The author publishes the following results of experiments conducted by him with a view to ascertaining whether the air exhaled by phthisical patients during quiet respiration is free from tubercle bacilli, viz.: (1) Such air is not free, but the bacilli are present in such small numbers that it can be practically ignored as a source of infection; (2) the chief sources of infection are the spray produced in coughing and the pulverization of the dried sputum, and (3) tuberculous involvement of the larynx increases the number of the bacilli in the expired air of quiet respiration to such an extent that, whereas, when this condition is not present the presence of germs cannot always be proved experimentally, such can always be effected when it exists.—*Zeitschrift fuer Hygiene*.

BIOGRAPHICAL SKETCHES.



J. MARION SIMS.



LORD LISTER.

Of gynecologists America has had many who stand out prominently in the history of medical progress, none more so, perhaps, than J. Marion Sims. He was born in the South in 1813. Here in 1852 he invented his well known speculum, the introduction of which marks an epoch in the treatment of the pelvic diseases of women. In South Carolina among the poor negro women he perfected his method of plastic surgery in the vagina for the relief of vesical fistulæ. Later, he demonstrated the method in Paris to the astonishment of incredulous Parisian surgeons, who had almost uniformly failed in their attempts. He successfully and brilliantly performed this operation in all the capitals of Europe, where, as in this country, he enjoyed the highest reputation as a gynecologist. He founded, in 1855, the great Women's Hospital in New York. He died in 1883.

Lord Lister, to whom is due the credit of originating the antiseptic system, was born April 5, 1827, at Upton, Essex. In 1852, at the age of twenty-five, he was admitted a Fellow of the Royal College of Surgeons of England. In 1860, he began his bacterial work in connection with antiseptics in Glasgow, this work being based largely upon the results of the researches of Tyndall, Pasteur and Koch. In 1880 he received the Royal Medal, and in 1892 the Copley Medal, among the highest distinctions which the Royal Society has to give. In 1895 he became president of the Royal Society, and in 1896 president of the British Association for the Advancement of Science. In 1897 he became Peer with the title of Baron Lister, and in 1902, on the occasion of the Coronation, his name appeared in the first list of members of the Order of Merit, and he was sworn a member of the Privy Council.

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ORIGINAL ARTICLES.

PHLEBITIS FOLLOWING ABDOMINAL AND PELVIC OPERATIONS.*

BY ROBERT M. FUNKHOUSER, M. D., of St. Louis.

The subject of phlebitis following abdominal and pelvic operations is of considerable interest, especially so as the ætiology is not well defined nor understood. And, although it is not common, still it is not uncommon, for upon making inquiries, it is found that cases have occurred in the practice of not a few, although some of them may not have appeared in print. I can readily conceive of many factors directly or indirectly assisting in the development of the conditions favorable to its appearance, particularly if there is any predisposition to circulatory irregularities, which predisposition cannot always be anticipated nor determined. It is after the occurrence that the physician is at a loss definitely to account for its appearance. It may depend upon a poor circulation, a weak heart, an anemic condition, or a blood dyscrasia, some kidney or liver disturbance or myocardial affection, inefficient or diseased valves, or perhaps varicosity, dependent upon some preceding puer-

peral or other condition, or traumatic influences, or sepsis general or local. Indeed, all diseases of the veins tend to cause thrombosis, whether the inflammation be caused by traumatism as from ligation or bleeding, by changes in the circulating blood or sepsis in the same. When the current of blood is slowed the walls become more or less in contact with each other or weak, fibrin may be deposited on the walls, and a thrombus readily forms. Whether phlebitis be plastic or purulent, whether it be due to gout, fever, or to a constitutional condition, or more often from injury, from the extension to the vein of a perivascular inflammation, or from a thrombus or an embolism,—in any case, the endothelial coat is implicated and the process is either arrested or it progresses with the formation of a clot and the various phenomena that accompany the process.

But there are cases in which the physician is unable to satisfy himself of the presence of any of the preceding factors in a given case. Leunan-

* Read before the St. Louis Medical Society, February 14, 1905.

der states that thrombus of the superficial or deeper veins of the lower extremity, sometimes of the main trunk of the femoral veins and the external iliac, may follow laparotomies and radical operations for hernia with normal healing.

It occurs more frequently in women than in men. More often the veins of the *left* side are affected. Van der Veer thinks that the anatomical distribution of the veins on the left side, as in varicocele, may have a bearing upon the pathology of these cases.

It has followed operations in the abdominal and pelvic centers on the liver, gall-bladder, uterus, uterine appendages, appendix or intestines, for the removal of tumors, fibroids, etc.

It appears between ten days to three weeks, and sometimes later than this, after operation. Recovery is more or less prolonged, from three weeks to three months, and even longer.

Tight bandaging may have something to do with its appearance in the possibility of compression of the returning veins by the dressing.

So also is constipation given as a cause. Ether also is mentioned as a possible cause with a high pelvic position in the course of operation with slowed blood pressure. Some writers believe that infection is the chief etiological agent; some that auto-infection may be a factor.

Van der Veer reports cases, as do Strauch, Fred Lange, Willimeyer, Mayo, Leunander, Welch and others. I have heard of several in this city. In my own practice but one has occurred, following an appendectomy in

a woman on the tenth day after the operation and the day following the removal of the sutures. At no time was there evidence of the presence of pus, the temperature reaching but 100° on the third or fourth day. Chloroform was used, and no rough handling of parts. Nor was there much swelling of the leg (*right*), though the pain along the course of the femoral and crural veins was severe, and the redness quite apparent. The course of the disease has been long and tedious, as the symptoms of phlebitis lasted fully eight months, which were followed by all the symptoms of neuritis, the pain being present in almost every part of the extremity, particularly in the heel and ball of the foot, and the under surfaces of the toes.

Rest was enjoined, and the applications of heat made. Very little improvement followed the various lines of treatment with the exception, perhaps, of baking, which was persisted in for several months. At present the patient is slowly (very slowly) improving, massage and passive motion being practiced. Each case must be treated according to the indications. The general health must not be overlooked; tonics administered; heart strengthened; elastic bandage applied. I am impressed with the thought that perhaps passive motion and massage can and should be resorted to at an earlier period in some of these cases than is usually indicated.

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THE SEBORRHOIC PROCESS.*

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When man directs his mind to the observation of a certain class of phenomena he soon perceives the possibility and the desirability of arranging these into groups. Next he notices the existence of characters common to two or more groups, which are thus made members of a more comprehensive class. Thus there comes into existence a classification, which constantly develops, its development proceeding in a direction inverse to that of the growth of a tree, the latter being from the trunk toward the branches, while in the former the process is centripetal, beginning at the terminal ramifications.

Meanwhile the tree of knowledge continues to put forth new twigs and leaves, from which there results two opposite tendencies in the increase of our knowledge. The one is a matter of apprehension, the other of comprehension. The one introduces greater complexity, the other tends toward simplification. And paradoxical though it may seem, the greater simplicity grows out of the complexity and could not proceed without it. Facts apparently far apart may be found to be but different examples of a common process when new observations are recorded in sufficient number to bridge the space between them, or to bring their limits so close as to permit of our seeing back to the point where the lines diverge.

The science of dermatology furnishes many examples in illustration

of what has just been said. It required the wide observation and keen logical faculty of a Hebra to show us that an erythematous patch, a crop of papules, a group of vesicles or pustules, or a scaling or a crusting surface might be but forms of a common catarrhal process. Thus the meaning of the term "eczema" suddenly took on such comprehensiveness as to be really a new concept. Thus a Duhring sorted out from the heterogeneous heap of bullous affections the materials which he arranged into his dermatitis herpetiformis, an achievement which remains a monument to his infinite patience and deep insight. Of special interest and value is it when the relations discovered are of a genetic, that is, etiological sort.

I shall this evening invite your attention for a brief space to an instance in which phenomena superficially dissimilar are yet fundamentally related. I shall choose my materials from amongst the veriest commonplaces of the subject.

Let me enumerate the following conditions: Oily seborrhœa, dandruff, seborrhœic eczema, baldness of the common type, alopecia areata, rosacea, blackheads, acne, styes, boils, carbuncles, epithelioma. At first sight this appears but a heterogeneous list of titles. Do these affections own any etiological relationship?

The question is one to which a final and wholly satisfactory answer cannot be given in the present state of our knowledge; especially since conclu-

* Read before St. Louis Medical Society.

sions confidently put forth in Hamburg are as positively denied in Paris. We may, however, spend profitably a part of an evening in reviewing the best opinions on the subject. I shall try to spare you technical details and to keep as close as possible to the real meat of the matter. If I seem at times dogmatic it is only because the necessary limitations of this paper will not permit of a discussion of all the different views which have found advocates.

Perhaps as good a plan as any for our present purposes will be to describe a hypothetical case, beginning with the initial condition and watching the successive development of affections with which it is, or is asserted to be, genetically related.

A child in the early teens, let us suppose, begins to show an oiliness of the scalp, noticeable to the touch when the fingers are run through its hair, and to the eye by an unctuous look which deepens the normal shade of its poll. In marked instances the long hairs adhere in elfish strands. At short range a nauseous rancid odor is distinguished.

This is seborrhœa, distinguished by all of the older and some of the modern writers as seborrhœa oleosa. It is, according to general opinion, a functional disorder of the sebaceous glands which furnish a secretion of greater fluidity and in greater quantity than the normal. This change, says Sabouraud, the learned Parisian, is due to an infection of these glands by a micro-bacillus, which he finds in pure culture within the gland.

Unna, of Hamburg, not only denies that the micro-bacillus is other than an innocuous resident of the gland,

but takes ground radically opposed to all former conceptions of seborrhœa. He teaches that the sebaceous glands are in no wise concerned in the process, but that the oily matter is an output of the sudoriparous, or as they are better called, coil glands. Consistency obliges him to discard the term *seborrhœa* and to substitute that of *hyperidrosis oleosa*.

While all admit that the coil glands under certain circumstances, and in certain situations (*e. g.*, the palms and soles, from which sebaceous glands are absent) furnish a proportion of oil, yet the older views, both as to the functions of the cutaneous glands and as to the true nature of seborrhœa, still meet with general acceptance, and to my mind have all the weight of evidence on their side.

Dismissing, for the present, the question of the true nature of the process, let us ask how it began.

The accumulation of dried sebum on the vertex of infants is familiar to all as one of the conditions, included under the vague and unscientific term *milk crust*. This, however, is a physiological seborrhœa, and does not come under the head of the present enquiry. While it may serve as the nidus of an eczema, I doubt that it is ever the starting point of a pathological seborrhœa extending into childhood proper as distinguished from infancy.

The true origin of pathological seborrhœa I believe to be in infection through the medium of the hair-brush. Mothers, if not habitually, at least occasionally, use their own brushes on the heads of their children, and thus, according to Sabouraud, transmit the micro-bacillus of sebor-

rhœa. Here is a practical point. Adults as well as children should be taught to hold the hair-brush as sacred as the tooth-brush. The frequent washing and occasional disinfection of the hair-brush is another point, the importance of which will become more apparent as we proceed to unroll our drama.

Soon certain anatomical changes become visible. The sebaceous ducts become relaxed and patulous, and are visible as small, black dots, from which a minute droplet of oily fluid may at times be expressed.

After a time the infection travels to the face, giving us the shining nose, with somewhat less glossy patches a little below the orbits and on the forehead. The skin has a muddy, dirty look, even in individuals who devote considerable time to the care of their person. Lateral compression of dilated ducts forces out a worm-like roll of a soft, creamy consistency, composed of a partially inspissated sebum mixed with epithelial *debris*, cells which have not completely undergone fatty metamorphosis.

A brief step farther and we have the fully constituted blackhead or comedo, a blemish at times so disfiguring us to poison the youth and even mar the prospects of many young persons, especially those of that sex which counts personal attractiveness as an important asset.

The sebaceous gland itself is but little affected morphologically, but its duct is enormously dilated as well as lengthened, and harbors a mass of hyperplastic epithelial elements. At the mouth of the duct certain pigment changes, also seen in forms of excessive epithelial proliferation in other

situations, produce a black, blue or brown deposit, the black-head itself, from which the whole of the little mass takes its name, and which is usually erroneously ascribed to the incrustation of dirt. I do not mean here to deny that neglect of ordinary cleanliness may not favor the development of comedones, but I gravely question whether plugging of the duct from without is a causative factor.

Let us for a while return to the scalp. The excessive oiliness may have become complicated with epithelial proliferation, as occurred on the face, but in the former situation it appears, not as blackheads, but as a layer of varying thickness, of the color of yellow wax, and of the consistency of that substance when slightly warmed. If the epithelial element predominate largely over the oily layer this may be more gray than yellow. The condition is still reckoned a seborrhœa, although modern opinion tends more and more to hold that inflammatory change, evident to the microscope, has commenced. To the unaided eye it is absent.

Meanwhile the hair follicle, intimately united as it is both anatomically and physiologically to the sebaceous sac, has not escaped unscathed. The presence of the invading bacteria has furnished a fat-splitting ferment, giving rise to butyric acid, whose rancid, nauseous odor was referred to earlier in this sketch. This acid, or perhaps some toxin, determines an increased but unhealthy activity of the hair-forming cells covering the nutrient papilla, which soon finds expression in a diminished vitality. The life of the affected hair is shortened, and it falls out. Soon, however, its

place is taken by a new hair, which, handicapped by the unfavorable circumstances of its bringing forth, and finding a more securely intrenched foe to contest its claim to life, falls an early victim, to be succeeded by a third appendage still more puny. So the unequal struggle fares, until the scalp, gleaming whitely through a few short, thin and light-colored hairs, shows where the oncoming tide of baldness, creeping stealthily but remorselessly, spreads its ever-widening margin from the crown or drives its wedge upward from the temples until it extends the boundaries of the forehead and thus counterfeits the aspect of wisdom. How much, indeed, of the venerable appearance of age is not due to the micro-bacillus of seborrhœa?

The depletion of the scalp progressing, there is ultimately produced in severe cases the true billiard-ball effect, a fringe of survivors usually holding out to the last around the occiput from ear to ear. The devastated area takes on a characteristic brilliant polish, due to the fact that while the hair follicle has wasted, its annexed oil-gland has enlarged and multiplied the complexity of its acini, and is thus prepared to furnish an increased unctuous discharge.

Sabouraud believes that not only the common type of baldness, but also that special form known as alopecia areata, is due to this organism. A consideration of this subject would lead us too far afield. I shall only say that his views have not met with general acceptance in this particular, and that the enormous majority of cases observed in this country are evi-

dently due chiefly to impaired nerve-supply.

Another condition of the scalp here calls for notice, although its connection with our subject is problematical and most difficult to define. I refer to the common affection known as dandruff or pityriasis capitis. It was at one time oftenest called seborrhœa sicca, a term now falling into merited disuse. I hold with Sabouraud that there is no such thing as a dry seborrhœa, a view in which all, perhaps, would not agree. I believe dandruff to be an infectious, mildly inflammatory disease, which may or may not, co-exist with seborrhœa. Certain high authority to the contrary notwithstanding, I am unconvinced of its possessing any etiological relation to baldness. I know many middle-aged men whose fine heads of hair have been full of scale for the last thirty years.

Unna holds that dandruff is the mildest expression and oftenest the initial stage of his *seborrhœic eczema*. Personally I am far from being persuaded that all dandruff is seborrhœic eczema. I still hold to the existence of a simple pityriasis capitis, although I confess that I can only distinguish between the two by the later history of the case viewed as a whole.

Be that as it may, it seems probable that there exists some relation between seborrhœa and seborrhœic eczema. The latter disease owes its qualifying title solely to the greasy feel of its scales, since both Unna and his opponents are agreed that it does not implicate the sebaceous glands. Unna believes that the coil glands are specially involved, but

many competent investigators have failed to corroborate his findings. Seborrhœic eczema thrives best in the same situations as does seborrhœa. The most reasonable conclusion to date seems to be that seborrhœa prepares the soil for the infective agent of seborrhœic eczema, whatever that may be. Unna thinks he has found it in his *morococcus*, an organism which most Americans recognize as the staphylococcus epidermidis albus, described by Welch in 1891, and to which they deny any such morbid influence as Unna claims.

Seborrhœic eczema may be briefly described as a superficial inflammatory disease, developing by preference on a seborrhœic base, characterized by symmetry, a tendency to the annular configuration, with sharp outlines, by its staining the skin of a light fawn color and by its being attended with relatively slight itching. It may simulate a scaly, less often a moist or even a papular eczema. Again, it at times so closely counterfeits psoriasis that some have been led to believe in the fundamental identity of the two diseases.

But seborrhœic eczema is not the only disease which, by thriving on a seborrhœic soil, is in turn modified by it. Syphilis often shows the seborrhœic impress, and the annular configuration occurring in that disease finds its finest examples on such a soil. The extension of a scaly lesion from the scalp to the forehead in the shape of a band, formerly called the corona veneris, and considered symptomatic of syphilis, is really much more characteristic of

seborrhœic eczema, and is better called the corona seborrhœica.

But let us return again to the young patient whom we left with a crop of blackheads on his face and perhaps as well on his shoulders and back.

The condition has probably taken on an additional development by the appearance of a peri-glandular inflammation, constituting the common disease acne. This disease is closely united to comedo etiologically. It is rare for either condition to exist 'without the other.' That acne is due to a secondary infection on a seborrhœic base, favored by but not demanding certain systemic conditions, there can be little doubt. Just what that secondary infection may be is not so certain. Is it one of the ordinary pus cocci, probably staphylococcus epidermidis albus? So say some, and so Sabourand's observations would seem to show, although he does not describe the organism by that name, but as "a coccus producing grey cultures." Unna's *morococcus* is again apparently the same thing. But Unna does not believe that the *morococcus* is the cause of acne, but prefers to assign to it the role of exciter of his seborrhœic eczema. On the other hand, he believes that acne is caused by a small bacillus which is very likely the same as Sabourand's seborrhœa bacillus, to which the latter investigator in turn denies that role, as we have just seen. Others again, such as Gilchrist, believe that the presence of the above bacteria is accidental, and look upon one or another special organism as the true cause.

But, however these views may vary,

the central fact which I wish to impress upon you remains unaffected; namely, that every case of acne postulates an antecedent seborrhœa, and that only by a recognition of this fact can we hope to successfully manage our cases. While it is true that gastric and intestinal derangements, dietary irregularities, menstrual disorders, and other depressing influences have their effect in the way of lowering cutaneous resistance, thus aggravating the disease, and therefore call for intelligent treatment, yet we must remember that none of these causes alone, nor all of them combined, could ever produce a case of acne. Seborrhœa is the *sine qua non*, and against it should our measures be chiefly directed.

Acne necrotica, also known as acne varioliformis, is a peculiarly inveterate form of the disease, possessing characters sufficiently distinctive to entitle it to recognition as a separate clinical entity. According to Sabouraud, it is due to infection of the immediate environs of a gland affected with seborrhœa with the staphylococcus *p. aureus*. It seems likely that a special soil is required for its development.

Middle-aged women, men of various ages who own convivial tastes, and certain other individuals, sometimes develop a bluish-red diffuse blush of the nose, and often of the chin and forehead as well, constituting the first stage of rosacea, later there is vascular hypertrophy, visible to the naked eye and constituting the second stage, while the third stage is reached when the neighboring tissues take part in the hyperplasia, thus sometimes producing marked deformity.

A diffuse vascular hypertrophy may appear late in life in an otherwise healthy skin, but I believe with Unna that true pathological rosacea is always the result of seborrhœa. It may or may not be complicated with acne. We have here another phase to add to the growing list of conditions growing out of the seborrhœic process.

I admit that boils, and less often carbuncles, may develop in a skin free of seborrhœa, but feel certain that we have here at least a frequent pre-disposing factor.

Professor Hardaway, in his admirable treatise, points out the relation between styne and seborrhœa. Certain cases which defy treatment directed against refractive errors can be cured by attention to the scalp. While the fundamental condition of seborrhœa is the first to make its appearance, it also persists after many of the conditions to which it gave rise have had their day. The growing seborrhœic impress is as marked a feature of old age as are wrinkles or bleached hair. After middle age it becomes associated with other lesions of a degenerative type, giving an unctuous character to the keratosis senilis, or flat warts, seen on the faces, backs and hands of the old. That these areas of degeneration often serve as starting points for epithelioma is a matter of common observation. As the hour is late and the subject presents many difficulties, I shall content myself here with this mere allusion.

We have, therefore, in the seborrhœic process one which, commencing almost from the cradle, may extend to the grave, which, viewed as a

whole, presents a basic condition on which may be engrafted many offshoots, and one which, unless it be understood and combated, will perpetuate the growth of its branches and put forth new ones. While I have dealt here only in the commonplace of the subject, I hope that this bird's-eye view of the group may be

suggestive to those among us who are not already familiar with this branch of our science, which hope, I trust, may be taken in extenuation of my offense in inflicting upon you a paper which has somehow grown to be much longer than I originally intended.

REPORT OF A CASE OF HYDROPHOBIA.* (RABBIES).

By B. A. WILKES, M. D., St. Louis.

In reporting a case of hydrophobia to you this evening I do not presume to advance any original or new ideas or suggestions as to the history, pathology, prevention or cure of this much dreaded disease or infection.

In looking up the subject I find but little English literature on the history or pathology of the disease, but there is no doubt that the disease is infectious, and can only be transmitted by a mad animal.

I do not believe, as yet, the bacillus or germ theory of the infection has been conclusively established. Spenelli, Rivolta, Foll, Ferran and others have detected and described a bacillus which they believe to be the true one.

The rarity of the disease, and the fatality which has attended its treatment for generations past, make each case all the more important and instructive.

Up to the time of Pasteur's investigation of the disease, there was no remedy that would offer any hope to the sufferer, but, thanks to this great man of science, his preventive inocu-

lation has reduced the mortality to a wonderful degree. Pottevin gives the following summary of figures from the Pasteur Institute: "From 1886 to 1894, 13,817 persons were bitten, with a mortality of 5 per cent." We take it for granted that all these were supposed to have been bitten by a rabid animal, and if such be the case, the low rate of mortality is phenomenal, and should induce us to inoculate even suspected cases; as the affection defies all methods of treatment after development.

The following is a brief report of a case which came under my observation recently at the Missouri Baptist Sanitarium:

On January 5, 1905, Dr. Cadwalader asked me to see a case with him that had arrived on a morning train, and on entering the room we obtained the following history: Mr. H. I., aged thirty-eight years; residence, Portland, Missouri, on November 25, 1904, was bitten on the left side of the head behind the ear by a pet red fox. Two wounds were made in the scalp by the teeth, and a short distance apart, which bled freely for awhile. The wounds healed readily

* Read before St. Louis Medical Society, January 28, 1905.

and were not cauterized or treated in any way, the patient paying no further attention to it, although the fox died on the third day after the accident. From this time the patient went on about his farm duties until January 3, 1905, when he began with a headache, more severe on the left side of the head, which continued to increase until the following morning, when Dr. A. D. Bridges, of Portland, was called to see him, and who has kindly written me the following history: "I called to see Mr. I. at 9:30 A. M. January 4th, found him in bed suffering with severe pains in the back and left side of the head, which radiated down the back and shoulders, and some nausea. Pulse, 100; temperature, 101°. Pupils very much dilated, and he was very nervous. I asked for a glass of water and placed a tablet on his tongue and then handed him a glass of water, whereupon he at once dropped the tablet from his mouth followed by several mouthfuls of frothy mucous. I repeated the effort to give the tablet with the same result. I then gave him three teaspoonfuls of water at different times and he had a convulsion after each one.

"I then held a counsel with the family in an adjoining room and obtained the history of the case, and with that and the symptoms decided that it was

a case of hydrophobia, and advised them to go at once to St. Louis for treatment."

When we examined the patient the following day, January 5th, at 11 A. M. temperature was 103°; pulse, 140. The attendants with him said he had had twelve spasms or spells from the time they left the train at the Union Station until the hour we saw him.

We ordered large doses of chloral by rectum, put on a special nurse with him and ordered the family to leave the room and perfect quiet enjoined.

The spasms became less severe until about 3 P. M. when they became worse. The dose of chloral was then increased without relief, followed in one hour with one-half grain of morphine hypodermically with no better result. We then resorted to chloroform by inhalation, which was continued through the night and until death came at 7 A. M. January 6th.

The patient was conscious all day and until about 10 P. M. of the night previous to his death. He seemed in a talkative mood most of the day but did not sleep. He made no effort to do any bodily harm to himself or anyone else, and made no peculiar sounds or noise of any kind. In a later report received from Doctor Bridges this morning, I learn the fox died with spasms and undoubtedly had hydrophobia.

PULMONARY TUBERCULOSIS, WITH SPECIAL REFERENCE TO ITS EARLY DIAGNOSIS AND HOME TREATMENT.

BY JOHN T. ANDERSON, M. D., Leeton, Missouri.

Gentlemen of the Missouri State Medical Association:

In presenting this subject for your consideration I feel that we are dealing with one of the latest of the infectious diseases, notwithstanding mankind has been a victim to this disease for centuries.

It is just within the last few years that the medical profession has had anything like an intelligent understanding of its cause and treatment.

Since Koch's discovery of the specific germ in 1880 we have been slowly building and broadening on a correct foundation, until today we are beginning to see through a glass dimly. We know at present that it is an infectious disease, highly contagious, and was becoming so very prevalent that it threatened to become an appalling plague, not only to this country, but the entire world. Prior to 1885 it killed in New York City more people than did typhoid fever, pneumonia, diphtheria, smallpox, measles, scarlet fever and cancer combined, but after twenty years of careful study and intelligent understanding of correct theory, accompanied by careful detail in technique, a great check was brought to bear on this monster's headway, so that in 1900 cancer alone killed more people in New York City than tuberculosis; but while this city has met with such marked results, the country at large has improved very slowly. "Knowledge percolates from the upper strata of human intelligence to the lower, and that not speedily;" but notwith-

standing this fact, we all know at present that tuberculosis is not any longer considered an hereditary disease in the sense it was once so considered, but it has to gain its entrance to the human system from without through some of the gateways into the body, which, in my opinion, is nearly always through the respiratory route directly to the lungs.

The germs having entered the bronchi, or carried to the air vesicles, if suitable soil conducive to their growth is present they will begin work by first adhering to the walls of bronchi or air vesicles and gradually imbedding themselves deeper and deeper into the tissues until they are in the connective tissue between the air cells. By this time, and maybe before, infection is apparent. Nature establishes an objection and calls to her aid her warriors, and a tremendous fight begins upon those intruders. She begins to encase this nest of germs first with a deposit of lymph substance, hermetically sealing the germs in a tubercle; around this tubercle a collection of fibrous tissue is created, hermetically enclosing the tubercle. If all has been well done, this may end the process. The germs will die, calcification, absorption and contraction of tissue take place; the disease is stayed or, in other words, cured.

But, on the other hand, we may not have so fortunate a termination. There may be several foci of infection, and in nature's attempt to encase so many points her work would not

be so complete, and if associated with bad hygiene, or if infected by any of the pus-producing organisms, the tubercle and surrounding tissue would undergo suppuration, and instead of a scar and a cure we have an abscess cavity with suppurating walls standing ready to infect other tubercle as well as adjoining healthy tissue; thus, repeated breaking down and reinfection may take place until a major part of a lung is destroyed or life itself is sacrificed.

This disease may attack the body and assume the following forms: Acute pneumonic phthisis, miliary or fulminating, subacute and chronic phthisis—all varieties are produced from the same germ. But the form is determined in a measure by the individual's cellular resistance through the elaboration of nature's antitoxine; also by the individual's hygienic surroundings. Of course, infection from other pus-producing organisms helps in determining the acuteness or chronicity of the case.

When a patient becomes infected with tubercular bacilli, anemia soon supervenes, a tired feeling comes on, accompanied by shortness of breath on exertion, loss of appetite, poor digestion, loss of flesh, eyes assume an unusually bright appearance, pulse is increased above normal, tongue is coated, skin loses its healthy look and irregular fever is established; cough may or may not be present in early cases, and in a great many cases cough is delayed until the disease is far advanced.

The etiology of this disease may be classed as remote and exciting; of the former there are many causes, a few important ones I will mention: A

weakening of the body through inheritance or acquirement, impure air, improper food and clothing, alcoholism, syphilis, la grippe; mental unrest, and many others. The exciting cause needs merely a mention: it is due to a specific germ. This now brings us to a very important place of this paper, namely: diagnosis. In no disease to my knowledge is it so necessary to make a correct early diagnosis as this one under consideration, if we expect to give our patients the least chance for health and life; it is for us to name the trouble and point them the way to live the rest of life's journey, and to do it early. There are so many physicians who do not come out and make a plain diagnosis and tell the patient and family from what kind of infection they are suffering, as they would do in typhoid fever or diphtheria, when they are fully satisfied in their own mind as to the infection being unquestionably tubercular. They will wait and call it lung trouble, bronchitis, or something of the kind waiting to see the germ under the microscope, and be pathognomonic before they will venture a direct and impressive diagnosis, and as a result of this waiting the patient loses his best, and many times his only opportunity to be cured. I would not detract one particle of merit from the microscope; without it, we would still be in ignorance concerning the nature and true pathology of tuberculosis, but if you wait for germs to be expectorated in order to make a diagnosis with a microscope, you have not made an early diagnosis which is so essential in this disease. The patient does not expectorate germs until the bacteria have entered the tissue of

lung cells or bronchial tubes, and nature has encased them in the tubercle. After tubercles have been formed, and if suppuration takes place, then it is that we have expectoration of purulent matter loaded with tubercular bacilla, and not until this takes place can we make a diagnosis with a microscope. The duration between infection and suppuration with expectoration of germs varies in different cases; in my experience it is from two to four months. Shall we wait all this time before arriving at a diagnosis and inaugurating the proper treatment? No. What then? Study history of the case presenting from its earliest beginning; note every symptom. To do this see your patient daily, as you would a typhoid or diphtheria infection. Investigate every organ and depend mostly upon your ears in intelligent systematic auscultation.

And, gentlemen, with what you can see and what you can hear you should be able to make a correct diagnosis several weeks at least before you could possibly do so with a microscope.

I will not mention the many symptoms that may be present to assist in an early diagnosis, but will call your attention briefly to auscultation.

In the different stages of pulmonary phthisis we may hear subcrepitanr rales, crepitanr rales, tubular breathing, broncho-vesicular respiration or the cog-wheel breathing. All of these abnormal breath sounds may occur in other lung affections and when present in phthisis are significant of a well advanced case. I desire to call your attention to a sound heard in early cases at the last of a very deep

and forced inspiration. I have come to look upon this sound as being pathognomonic of early phthisis and have seen it proven later by pulmonary hemorrhage and the microscope. I call this sound a musical click, it is imitated to some extent by holding a tightly stretched thread, one end between the teeth, the other between thumb and finger nail, and pick the thread with the finger nail of the free hand. Remember that in order to get this sound it may require several very deep inspirations and that it is heard best on the posterior chest at middle or lower angle of scapula; we often can get this sound long before there is any cough, and always before there is any expectoration.

Again, I desire to affirm that with careful and repeated examination of a case as to history and symptoms, with careful auscultation of the posterior bare chest we should be able to arrive at a correct diagnosis before the tubercular bacilli appear in the sputa. Our diagnosis having been made this brings us to consider treatment, and in accordance with title of paper it will be home treatment. All praise for the sanitarium treatment of phthisis. The men in this work have shown us what can be accomplished by fresh out door air in any climate, and have fully demonstrated to us that phthisis is a curable disease, but I believe that you all will agree with me that the sanitarium is not practical for a large majority of people. Imagine a young mother with two or three little children whose husband owns a small farm and is earning a comfortable living; this mother and wife becomes infected with tuberculosis; if she can remain at home, the husband can hire

a housekeeper ; the family can be kept together, and the children can have a mother's advice and the husband's business will not suffer very materially ; on the other hand, if she is sent to a sanitarium the family is broken up, their source of support to a great extent is cut off and when they consider these questions the mother will remain at home with her little ones and die before she will consent to break up the family. Most of the families in our entire country are so situated. What then shall we, the medical profession offer to this large class? Intelligent, modern home treatment is the only solution. The treatment of phthisis in the home is a matter of education, not only of our patients, but their immediate families as well ; they must be told from what kind of infection they are suffering, *i. e.*, the diagnosis should be plain and impressive, the same as we would do in typhoid fever or diphtheria.

The doctor should fill them with hope and confidence in the fact that phthisis is a curable disease if instructions by him are persistently followed. They must be taught that fresh air is the main weapon in the fight for a cure. They must be taught that phthisis is a very contagious disease and the patient must occupy a room as nearly as possible to himself, especially during sleeping hours. They must have their individual drinking cups and other utensils used in drinking and eating. After use they should be boiled. Bed clothing and body clothing should be changed often and boiled. If any matter is expectorated it should be burned.

Explain the reason for all this, that it is not only for the protection of

those who are not infected, but is absolutely necessary to prevent reinfection of themselves. They must be taught to take lung exercise at stated intervals during the day, expanding their lungs to the fullest extent every time ; they must be told of the mechanism of this and the good that will accrue from it. The proper clothing should be prescribed, woolen or silk underwear. If the patient has fever he should be placed to bed in a room that is large and free from carpets or an undue amount of furniture, and one that can be well ventilated, and that will allow an abundance of sunlight. If this is not obtainable prescribe an extra window, or if necessary the construction of a proper room

Teach your patients that outside air in Missouri is very nearly as good for phthisis as Colorado, and that outside air in Missouri is one hundred per cent. better than a closed room in any of the western states that are so highly lauded for the cure of tuberculosis. Teach them that it is the air and sunshine and not any particular state or section of country that cures. So long as the patient has an elevation of temperature he should be kept in bed with an open window day and night, accompanied by lung exercise at regular intervals. After temperature becomes normal they should lie out of doors when weather is fit, all day ; moderate exercise, as walking or riding, will also be a benefit after patients have gained sufficient strength so that they will not become too tired. These instructions should be recited to patients three or four times a week and inquiry made to find out if they are living up to them.

By this repetition the patient becomes educated along our plans, and becomes well versed in the technique of home treatment. And as they begin to improve they will adhere more closely to your talks, providing you keep up your promptings.

Use of Drugs in Phthisis.—I believe that drugs are as potent for good as they are for harm, and, like people, it is easier to get evil effects than it is to get good results, but with their judicious use we have valuable auxiliaries in combating tubercular infection.

The alimentary canal should be kept cleaned out and as aseptic as possible to prevent autointoxication. I do not believe in stuffing a patient with large doses of nauseous mixtures at the expense of digestion simply because they have been recommended. But drugs used according to their intelligent indications, and discontinued when their purpose has been attained, are powerful for good. I will now name a list of drugs as my drug armamentarium, from which to draw as I may need: Calomel, pilocarpine, nitroglycerine, phenacetine, codeine, heroin, atropine, strychnine, neuclein, guaiacol carbonate, syr. hydriodic acid and creosote. The treatment of phthisis would not be complete without mentioning the cold, wet pack, or ice bag, in controlling high temperature.

I desire to affirm that all cases of phthisis can be benefited and a large majority cured in their homes if the above plans are persistently carried out by doctor and patient alike, with the co-operation of family and friends. If time permitted I should like to report a list of phthisis cases coming under my care within the past five years and treated in their homes along modern plans. Taking the cases as they came in general practice, in all stages, the results have been very nearly as satisfactory as the treatment of pneumonia, with this difference, however, when a patient suffers from a tubercular infection he is compelled to keep an eternal vigilance on his future living. If he fails to live up to the laws of health and to plans that brought about his cure the disease may be rekindled. I desire to reiterate the points in this paper: (1) Phthisis is a contagious disease; (2) phthisis is a curable disease; (3) it can be cured at home; (4) the diagnosis should be made early; (5) you must educate your patient along your plans and obtain his confidence and his co-operation; (6) fresh air and lung exercise are the agents that cure; (7) drugs judiciously used are valuable auxiliaries; (8) after the disease has been stayed or cured the patient is compelled to live ever after up to the plans that determined his cure.

THE MEDICAL TREATMENT OF APPENDICITIS.

BY EUGENE F. HAUCK, M. D., St. Louis.

A cure of any case of appendicitis by medical means is thought impossible by most surgeons at the present time, and, in a great measure, by the laity as well. Most surgeons, without hesitation, state that every case of appendicitis, typhlitis, or perityphlitis must be operated in order to affect a cure. I am one of the few that beg or dare to differ with them. I am aware of the fact that many cases do require an operation, but I also know that a large number can be permanently cured without one, and I here wish to state, as my positive opinion, that a large number of operations for appendicitis are not justified and that more harm than good results from some of these operations.

I have been practicing medicine for twenty-four years and in that time have seen and treated many cases of appendicitis.

Have seen cases that prominent surgeons had examined, and in which they stated that only an operation would prevent death, get permanently well without such operation, and these same patients are alive to-day, in good shape and with no relapses.

Surgeons operate with the idea that an exploratory laparotomy does no harm and will then remove the appendix, whether diseased or not; but unfortunately a clean abdomen is in this way sometimes infected, and suppuration takes place (where there was none before), with its many evils and after effects. Such a patient is crippled for life and might have been a well man if the knife had not been used.

I have personally seen above condition more than once, and it is this class of cases that I referred to, where more harm than good results from an operation that was not justified. This is well illustrated in an article by Dr. Ashton, in *American Medicine*, Vol. VII, No. 9, on a "New Technique in Operations for Appendicitis," in which he says: "In performing appendicectomy there is always a danger of infecting the parts surrounding the seat of operation when the appendix is amputated and opening in gut is sutured. The operator's fingers and instruments came in contact with the exposed intestinal mucous surface at seat of amputation. Many of the unexpected deaths which follow operative interference in uncomplicated cases of appendicitis as well as chronic sinuses and delayed recoveries, which results are undoubtedly due to an infection from this cause, etc., etc."

Catgut, not thoroughly sterilized and want of proper care often cause infection where none existed before.

Some surgeons recommend imagination of appendix and overlook the fact that where this occurs spontaneously (by nature) it is often the head of the column in ileocecal intussusception, and may occur if done by operator.

Errors in Diagnosis.—Dr. O'Hanlon, of New York, says, "Appendicitis belongs to a class of diseases which we often read about but seldom see in an autopsy. Again and again I know of cases where a diagnosis of appendicitis has been made on the

strength of pain in the ileac region and some gastro-intestinal symptoms, all of which promptly disappeared after a little judicious treatment.

Among 3,000 autopsies made by me during the last seven years I have only seen ten cases of appendicitis. I had forty-two cases sent me, which had been diagnosed as appendicitis, and in thirty-two of them the appendix was normal.

Other conditions, which have been mistaken for appendicitis, are the following, viz.:

Renal Calculi, cysts of right ovary, when strangulated by twisted pedicle, twisted hydro-salpinx, cholecystitis, lesions of pancreas, sarcoma of small intestines, idiopathic peritonitis, stomach and liver troubles.

Treatment.—Many medical authorities agree that medical treatment will, in a great number of cases, cure appendicitis, among them Osler, Strumpe, Sands, etc., some few surgeons also admit that it is often effectual.

A review of the cases occurring in the French army present remarkable evidence favoring the medical treatment of appendicitis. Dr. Chauvel, medical inspector of the French army, gives the following statistics: In 1902 he found 668 cases in military hospitals; 188 were treated by operation and 480 medically. Notwithstanding that, according to an eminent writer—"The medical treatment of appendicitis does not exist"—of the 480 cases treated medicinally, but five died, while of the 188 operated on, twenty-three died. These facts should not be ignored in the interest of the patient.

Mild cases often recover. Sometimes an adherent appendix is caused

by an inflammation extending to serous surfaces from pelvis; this often disappears again and even where bound down by a film of serous adhesion will do no harm. Dr. Baldy, of Philadelphia, claims that such an appendix ought not to be removed if found when operating for some other trouble.

Even in suppurative cases nature often works a better cure than an operator could do, although I believe in operating all cases where pus is undoubtedly present, and do not believe in leaving such cases to nature.

Dr. Lyon states, in *La Presse Medicale* for October 28, 1903, that the majority of cases of acute appendicitis, if seen at the beginning of attack, are amenable to treatment.

Appendicitis is due to a variety of causes, viz.: foreign bodies in appendix, fecal concretions, grape seeds, corn, cherry-stones, pins; some claim eating of too much meat and want of exercise. In Germany, often caused by splinters from earthen dishes, peanuts, la grippe, rheumatism, menstruation, and pneumonia, sometimes accompanied by pain in the appendicular region. Dr. Soupalt claims it is often found during a menstrual period, and such cases seldom require an operation. La grippe often causes abdominal symptoms resembling appendicitis. I have seen several such cases, where operation was advised by others, get well without it.

Each case has to be treated according to symptoms present; condition of patient, etc., to be considered also. Unless decided symptoms of suppuration are present, I attempt treatment about as follows: Locally either ice-bag, or, in some cases, hot

antiphlogistine, thickly applied. In some strong, robust persons leeches are excellent. Internally I give one-fourth grain of calomel every hour until bowels move freely, and, if necessary, give large warm enemas of water, and repeat them if needed in a few hours. Opium only when pain is very severe. After acute local symptoms subside I apply ichthyol externally, and now and then carminatives internally. Only liquid food is given for some time, and none at all for forty-eight hours if patient's condition allows such a course. Absolute rest in bed for some time and

great care in diet for several weeks are needed.

I have successfully treated a large number of cases in twenty-four years, and I do not recollect a single instance where I had advised against an operation that it became necessary to operate afterwards, and all of such cases also recovered. I wish here to reiterate that the stand taken by most surgeons, that all cases of appendicitis can only be cured by an operation, is wrong, and that a large number will get well without an operation is undoubtedly true. At the same time I know that many cases require an operation, and that often in a hurry, too.

PNEUMONIA.

BY JOHN D. SEBA, M. D., Bland, Missouri.

When we take into consideration that the death rate from pneumonia for the past few months in the principal cities of the United States exceeds that of any other disease, we at once comprehend the importance of our subject. It has not only lead in death rate in the cities but in the country as well; sparsely settled communities have by no means been exempt from the dreadful malady. This is not to be marveled at when we consider on one hand the important part the lung plays in the physiological economy of man and the vicious micro-organisms that are infectious agents on the other, when we consider the fact that the lung is the organ by which carbon dioxide is exhaled and oxygen, without which animal life cannot exist, is not only inhaled but taken into the blood.

Then and there only does the mind conceive the width and depth of our

subject. When we speak of pneumonia we mean croupous pneumonia, the old-fashioned pneumonia, the pneumonia that always means disaster to old persons and almost all infants it attacks, and death to many young and middle-aged people.

Of all the acute infectious diseases pneumonia undoubtedly stands near the front. Cholera may sweep before it its thousands, but it visits us only once during a generation, whilst pneumonia is with us six months in the year.

Scarlatina, measles and smallpox are sometimes of malignant types, but one attack furnishes immunity against another, whilst in pneumonia one attack predisposes to another. It is rather unfortunate that the nomenclature of the various pneumonias has been so distorted and perverted. Many writers have attached to it different names, each with the explana-

tion that his better expresses the anatomical part affected and the pathological condition present. We may congratulate ourselves that as our knowledge about pathological conditions widens and enlarges, our vocabulary enables us to find suitable words to best convey to others our conceptions of the conditions as we think they exist.

Bronchial Pneumonia. — Bronchial pneumonia, or capillary bronchitis, is the most frequent form of pneumonia met with. It is most frequent in infancy and old age; adults and middle-aged persons as well, however, being subject to this disease. When middle-aged persons suffer with it, it is generally called catarrhal pneumonia; the pneumonia most frequently met with as a complication in la grippe, hay fever, and measles; and when not due to any specific germ, such as that of la grippe or measles, it is most always due to auto infection, induced by inclemency of the weather. The body is chilled by wet or damp weather. The pores of the skin are closed, the skin as an excretory organ refuses to perform its functions. The impurities created in the blood are thrown upon the mucous membranes to be thrown off. These impurities, irritating to the mucous membranes as they pass through them, cause first a congestion; second, an inflammation and a suppuration, and then gradually a normal condition is re-established, unless, as is often the case in infancy and old age especially, the case terminates fatally. If once we understand the pathological condition, the treatment, or the relief to be obtained, is easy. Eliminate the

noxious agents that are causing the trouble through the bowels, the kidneys, and the sweat glands. Just how these ends are to be accomplished, will be left for each individual to decide. This paper was not intended as an essay on broncho or catarrhal pneumonia, and can only give it passing notice. Very often the congestion and inflammation is so great in some of the smaller bronchial tubes as to cause their complete closure by œdema and swelling, preventing the air from going out of or into that portion of the lung which these tubes supply. Obstruction atelectasis results.

Traumatic pneumonia is a pneumonia caused by traumatism, such as broken ribs, contused wounds, punctured wounds, stab wounds, gunshot wounds, and sometimes a foreign body inhaled into the smaller bronchi, where it sets up a septic condition, and infects the surrounding lung tissue. As traumatic pneumonia is strictly a surgical disease, a surgeon should be called to treat it, unless the attending physician is a surgeon himself; in any event the treatment belongs to the field of surgery and will not be further discussed here.

Septic Pneumonia is a pneumonia in which the infectious agent is of a septic nature. It is most frequently met with as a complication to typhoid fever; it is wrong to call these cases typhoid pneumonia, as this term is generally applied to a low muttering and delirious pneumonia. It is always best, in speaking of pneumonia that complicates typhoid, as a typhoid complication, and not a pneumonia complication. Some of the most serious cases of septic pneumonia that

the writer has ever seen were from sequelæ of scarlatina. In these cases large amounts of blood were expectorated, and, although in the minds of my consultants these cases were ably and vigorously treated, both terminated fatally.

I wish to add, that it is the writer's opinion that, in these cases of septic pneumonia, we had a mixed infection of various pyogenic organisms. We often meet with mixed infection in diphtheria, erysipelas, etc. I wish to add that if we always knew the exact character of the infection, we could employ remedial agents that would save our patients from fatal termination of the disease.

Perambulating Pneumonia.—Of late, physicians of my section of the country have laid great stress upon perambulating pneumonia. The term is not expressive of any pathological condition; but simply expresses a condition of a predominating symptom of restlessness and nervous excitement, and wherein the patient refuses to remain in bed, but keeps on walking from one room to the other. It has been pointed out that these cases were of grave nature, and many cases terminated fatally. The fatal termination of these cases is, in my opinion, not due to a serious or deep-seated infection, but more particularly to an exhausted condition of the nervous system.

Croupous Pneumonia.—The undulterated old-fashioned croupous pneumonia is really the theme of my paper. It is the subject upon which I am to write. I am sorry that the subject, owing to its importance, was not selected for an abler essayist, a college professor, who possesses lan-

guage to portray the disease in eloquence sufficiently worthy of the subject.

The Etiology of Croupous Pneumonia has long since been established by bacteriologists to be the pneumococcus. That this bacteria is widely distributed may be inferred from the wide distribution of the disease. The development of the bacteria seems to be favored by certain climatic conditions, a damp atmosphere, a little above freezing point, seeming to be favorable to its development; whilst dry cold, or dry warm weather delays its development, or kills it altogether. The prevalence of pneumonia in damp weather with a low temperature, the absence of the disease, "when dry atmosphere, either warm or cold, exists, would lead to this conclusion. That croupous pneumonia is often due to a mixed infection, and not only to the pneumococcus is my firm belief. The different courses of the disease, in different seasons and different epidemics, seems to point to this conclusion. The soil as well as the seed must be considered in the etiology of croupous pneumonia. It is said that light-complexioned persons are more subject to pneumonia than dark-complexioned. A low state of health, a sluggish liver and kidneys, a constipated alimentary canal, a skin with clogged up pores, and superficial breathing, are all conducive to the development of pneumonia. In other words, pneumonia is likely to occur in the individual whose tissue metamorphosis is retarded.

Steam is hard to keep up in an engine whose fire box is full of ashes. So it is with the human body; health is hard to maintain with the bowels

full of dead and effete material, with the bronchial tubes full of waste matter that should have been excreted by the kidneys and the skin.

This, together with lazy and shallow breathing are the most frequent predisposing causes of pneumonia. The time-honored theory that cold was both a direct and a predisposing cause of pneumonia, has long since been successfully contradicted, and needs no refutation by the writer. If cold is a cause of pneumonia, either direct or indirect, why is it that there is more pneumonia in states with open winters than in countries where the temperature remains below freezing point all winter. Real healthy blood has a germicidal effect on bacteria, or at least a tendency to throw off the bacteria, or to eliminate it from the system. The pneumococcus enters the lung through the open mouth, probably with every breath we take. It travels with inhaled air through the trachea and bronchus, and into the air cells and is there lodged on the walls of the alveolar tissue. If conditions are favorable to health, the blood will not take up the poisons, but will either destroy it or throw it off. But if the system is already loaded down with dead and effete material, is already suffering from auto-infection, then what happens? It remains there, its favorable location causes it to grow and multiply. It has found the favorable soil for its growth, development and multiplication. The great nervous system, through its wonderful complex and reflex action, commands an army of red blood corpuscles to destroy the invading army of pneumococcus. And for the time being the small

alveoli in the human lung is the battle field. Thousands of red and white corpuscles are hurried to defend their country. The body is thrown into severe chill, followed by a rise in temperature 101 to 105. The pulse is accelerated to 100 to 140, full and bounding. Pain is severe and generally reflected to the nipple. The blood cells are rushed to the affected part in an effort of nature to preserve its integrity; many of them are crowded through the walls of the alveoli, mixed with fibrin, and later appear in the sputum; hence the brick dust or rusty sputum said to be pathognomonic of pneumonia. The alveoli or air cells gradually fill up with blood and fibrin, making solid lung of the part affected. No rales can be heard over the affected lung, percussion elicits a dull note. Owing to the reduction of lung fit for breathing, we have increased respiration. If one-quarter of the lung is involved, respiration is 30 to 36 per minute; if one-half of lung is involved, respiration is from 40 to 50 per minute. The pulse is increased to 100 to 160. This increase in pulse rate is differently accounted for by different writers.

The circulating carbon dioxide in the blood current from the non-arteriated blood that passes through the affected lung, the condition of the blood current, due to the infectious action of the pneumococcus, as well as a reflex action of the pneumogastric nerve, are, in my opinion, all causative factors in raising arterial tension or other untoward heart symptoms. The ashy complexion of our patients tells us that the blood is not properly arteriated or oxygenized. The patient has now been sick for seven

or eight days, and the chemical laboratory of the human body begins to manufacture anti-toxine for pneumonia. As soon as there is enough anti-toxine in the blood, the plug in the alveoli softens, air returns to the crippled lung, the temperature and pulse both fall below normal, a heavy perspiration breaks out over the body. There is some resonance or percussion; we now hear the rale reduct, resolution has established itself, and now convalescence is established. This is the ordinary course of uncomplicated cases of croupous pneumonia, in otherwise healthy adults. But very often there is no such even course and no such eventful recoveries, but cases terminate fatally from the third to the twenty-first day. Cases presenting various and many complications may be put down as mixed infection upon one hand and a peculiar soil upon the other. Pleurisy is the most common complication of croupous pneumonia.

When the parietal or the visceral layer of the pleura is involved in the general inflammation the fluid or pus which may accumulate in the cavity on account of this complication may require removal.

The next most serious complication is heart affection. When we bring to mind the extra amount of work the heart has to perform during the attack, the amount of impure blood that is propelled through this organ, then can we imagine the danger and liability of endocarditis and myocarditis. The often sudden and unexpected deaths from pneumonia after the crisis, ascribed as heart failure, still furnish a profitable field for investigation.

Diagnosis.—The diagnosis of an ordinary uncomplicated case of croupous pneumonia in an adult should be an easy task. The sudden onset, severe chill, and pain under the nipple, followed by a bounding pulse and high temperature, are characteristic of pneumonia. The rusty sputum is said to be pathognomonic of pneumonia. In children we may have spasms. In the aged we may have a subnormal temperature and a depressed pulse. Under such condition the pain in the side or under the nipple may be mistaken for intercostal neuralgia. In such conditions we must depend upon physical examination in making a diagnosis. The crepitant and sibilant rales, and later the consolidation and dullness over the affected part, should clear the diagnosis. To discover that your patient had pneumonia is almost unpardonable. The microscope may often be put to valuable use, especially is this the case where there is a question as to whether we have to deal with typhoid or pneumonic fever. I wish to say, however, that most of these cases are typhoid fever primarily and pneumonia secondarily.

Treatment.—In the treatment of croupous pneumonia I have nothing new to offer. Cases seen during the stage of ingorgement and before consolidation may, by prompt and vigorous therapeutics, be aborted. After consolidation of the affected lung no remedy known will abort a case of pneumonia. The principle of the treatment lies in elimination, antiseptics and tonics.

Elimination is best effected by calomel and saline cathartics; the mercury not only acts as an eliminant,

but as an antiseptic also. Aconite and veratrum are employed not only as antipyretics, but as eliminants. Digitalis serves the double action of tonic and diuretic.

Creosote or creasotal, guiacol carbonate, only serve the single purpose of being suitable and valuable antiseptics. Expectorants are also to be considered as eliminants. The envelopment of the chest with a cotton jacket, after the chest has been oiled with glycerine, is an agent of value, and replaces the old-fashioned and time-honored corn meal or mush poultices. It is well for the physician to see these cases at least once in twenty-four hours. Although the writer has never bled a case of pneumonia, still will not hesitate to do so should an occasion exist; as a rule, however, the same results can be obtained by active cathartics that are to be obtained by bleeding, *i. e.*, reduction of the volume of blood. Fly blisters, in my opinion, are only of

value in pleuro-pneumonia. Where the parietal pleura is involved the fly blister used as a counter irritant is of much value, but is not needed and of very little value in uncomplicated cases. It is well to suspect a pleuritic effusion, and examine for the same frequently. Prolonged convalescence, frequent rigors, alternated by a rise of temperature and sweating, are indicative of pus absorption. Search for pus with an aspirator, and if found, evacuate, and give your patient a chance of recovery. Of course, this part of the treatment belongs to the practice of surgery. The physician should ever be on the alert to discover such cases, and, unless a surgeon himself, he should turn it over to a surgeon at an early date. The physician who successfully carries through a patient sick with double croupous-pneumonia is entitled to a remuneration equal to that of a surgeon, who has done, or performed, a capital operation.

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EDITORIAL.

RELATION OF MEDICINE TO SOCIAL AND BUSINESS INTERESTS.

The important relation of medicine to social and business interests of a state and nation are each day becoming more apparent to the medical profession in general and to the public at large. It is now generally recognized that the public health, com-

mercial prosperity and various social interests frequently suffer because of a lack of efficient legislative sanitary regulations and defective medical laws.

During the last few years, however, it is certainly gratifying to note that the medical profession and the public are becoming more interested in important matters of medical science

relating to the social welfare and business interests of state and nation. Through the work and influence of medical men during the last few years the masses, of the people have been gradually enlightened through the medium of some of our best literary journals on important matters pertaining to the health of the people. So surprising and so startling have been some of the facts recently revealed to the public by reliable investigators along the line of food and drug adulterations that we have good reason to believe that we are on the eve of a general awakening of our people to the urgent necessity of proper legislative measures in behalf of the health of the public. Until very recently the eyes of the general masses of the people have been absolutely closed to numerous audacious frauds which have been perpetrated upon them during the recent years of the past. For instance, as an example, the food value consumed by the American people is said to be about \$5,000,000,000 (five billion dollars) annually. Out of this amount we are told that various foods to the extent of the value of \$100,000,000 (one hundred million dollars) is fraudulently prepared every year, and that 10 per cent. of these fraudulently prepared foods, which represents a value of \$10,000,000 (ten million dollars), contains poisonous substances and otherwise noxious agents which have a deleterious effect upon the health of the people who consume them. Those who have investigated this subject have reached the conclusion that the extent to which fraudulently prepared foodstuffs is now being carried on in this country is sufficiently great

to cause alarm on the part of the consuming public.

Some idea of the possible extent to which some of our common articles of food are adulterated may be obtained by a knowledge of the fact that there are now six firms in this country regularly engaged in the manufacture of coffee-bean-making machinery. Each firm, we are told, has scores of clients using these coffee-making machines, which grind out bogus coffee berries by the ton. These artificial, factory-made berries, it is said, are more perfectly formed than the true, natural berry, and we have no good reason to doubt that many of them may contain stimulating, narcotic ingredients, which have a deleterious effect upon the health of the uninformed people who use them. The substitution of red lead and rice flour for cayenne pepper; of charcoal, cracker dust and spent cloves for allspice, with numerous other citations of adulterated food articles are stated to us as facts by reliable authority. Of ninety-three samples of candy examined by the Massachusetts board of health, it was found that eighteen were colored with the poisonous chemical compound of chromate of lead.

One of the most widespread evils in our land is found, however, in the "patent-medicine curse." According to Dr. Hiss, of Chicago, the sale of patent medicines in the United States must reach the enormous sum of \$60,000,000 annually, and from the composition of many of these so-called remedies, as revealed to us by expert analytical chemists, we cannot fail to be convinced that a very large percentage of these preparations does

positive harm. The increased use of alcohol in the United States during the last few years, it is said, is not due to the increase of individual use, or to an increase of the number of individuals using it as such, but to the enormous consumption of patent medicines, many of which contain all the way from 12 per cent. to nearly 50 per cent. of this intoxicant. It is stated that one of our middle west cities turns out 21,000,000 barrels of patent medicine every year, and that another patent medicine firm uses 500 barrels of whisky per week in making its product. The harmful effects and the number of physical wrecks caused every year by the patent-medicine curse can never be told. When it is a fact known to medical men that many of the innocent, uninformed citizens of our state, deluded by false promises of a restoration to health by the bold and misleading advertisements of patent nostrums, are unknowingly taking preparations which contain morphine, opium, cocaine, alcohol and other dangerous drugs, it certainly, without any question, becomes the urgent duty of our state and nation to protect them.

To these impositions on the public add the deceiving advertisements of numerous other fake cures found in the columns of most all of our daily papers, the reckless sale of other harmful narcotics, the fraudulent testimonials and advertisements of illusionists and monomaniacs who pose before the public as healers of the sick, with the cunning dealings of the unscrupulous rascals who know they are practicing the gravest kind of deception when they extort money from our sick and trustful citizens by

promises of a cure through a divine power. A lack of space will not permit us to enumerate more of these serious and grave impositions, which are being daily practiced on our people, and which are constantly jeopardizing the health and lives of many of the good, honest, uninformed, health-seeking citizens of our state and nation.

In the face of these facts, which could be multiplied, has the time not come for an emancipation of our people from the ignorance, suffering and harmful results to which they are daily subjected by these nefarious practices? The seething current of the rapidly increasing commercial rivalry in the direction of food and drug adulterations, and in the numerous fake practices imposed upon our sick and suffering, must be checked by the strong arms of our state and nation for the welfare of humanity.

To this end, for the accomplishment of this purpose, with many other duties devolving upon us, complete organization of the medical profession is the first necessary step. The American Public Health Association, the Conference of State and Provincial Boards of North America, the Public Health and Marine Hospital Service, with representatives of the health boards of the various states, the Section of Hygiene and Sanitary Science of the American Medical Association, our state boards of health, with various other organizations for the good of the public, must have the assistance and co-operation of the medical profession if the purposes for which they are intended are fully accomplished.

If a simple statement of these few

facts will be the means of appealing to the best judgment and wisdom of the medical men of Missouri in a way that will call forth renewed energy and still greater efforts in this work of organization, their purpose will be fulfilled. It is to be hoped that at our next annual meeting in May we will have enlisted in our ranks a force of at least 2000 loyal physicians of our state who will pledge their support in efforts to secure better medical and sanitary laws. M. P. O.

BENEFITS OF ORGANIZATION.

The influence which the organized profession, imperfect as this organization is as yet, is exerting in regard to medical legislation is very apparent. The very fact that we are organized makes legislators and executive officers give us some thought. Both the executive and the legislative branches of the state government are inclined to give a very willing ear to medical men, and we are reliably informed that some of the recent appointments upon the boards of managers were given to medical men in order that an opportunity would be afforded them to have a voice in the scientific as well as in the ordinary administrative work of the institutions. The better we are organized the more we can accomplish.

Dr. L. F. Murray has been appointed a member of the board of managers of the Nevada insane asylum.

RETROCECAL AND RETROPERITONEAL APPENDICITIS.

It may be stated, that when we speak of appendicitis in any form, we mean a pathological condition and

we are not dealing with a normal appendix.

The question as to whether we have in normal anatomy a retroperitoneal appendix is not under discussion. That such a condition, however, does exist I do not question, though it is conceded to be rare. But the question is, can we use as synonymous terms, retrocecal and retroperitoneal appendicitis? From a purely practical standpoint the answer is, yes.

It must be admitted that we seldom see the patient in the primary attack and that the vast majority of cases are operated on during or following a second, third or fourth attack. Following these various attacks are pathological changes and adhesions in nature's efforts to protect the general peritoneal cavity. As a result, new relations are established—a transposition of normal location takes place, and the appendix is forced back, away from the peritoneal cavity and back of the cecum, and a new formation of peritoneum, the result of inflammation, is formed over the appendix. In this way, it is virtually retrocecal and retroperitoneal.

The proximity to the gall bladder, the psoas muscle, the right kidney sub-space, the right ureter, the possibility of a sub-renal abscess independent of the appendix, all make the diagnosis difficult and perplexing. The chances are, however, that the vast majority of pus formations in the direction of the right loin and subphrenic region are due to appendicitis.

This must be due, not only to the location of the appendix back behind the cecum, but largely dependent upon the length of the appendix or

the point of rupture or ulceration of the organ. If the distal end of the appendix, which is fastened back of the cecum, is the seat of such necrotic changes, it will most likely form an extra peritoneal abscess. On the other hand, if the ulceration takes place near the proximal end of the appendix, septic matter may be poured out into the general peritoneal cavity and a localized or general peritonitis will ensue. In the latter case, as in the first, the appendix will be found securely anchored back of the cecum, and invested with a peritoneal covering—possibly a new formation—but to all intents and purposes it is not only retrocecal but retroperitoneal.

I can recall at least one case in which I operated early (eighteen hours after the beginning of the *primary* attack), in which I am confident that I had to deal with an *anatomical* retroperitoneal appendix. The peritoneal membrane covering its anterior surface was continuous with that covering the cecum—no adhesions had formed in the short time since the onset of the attack and no meso could be discovered. The appendix was firmly attached to the cecum without intervening peritoneum and it required delicate dissection to free it from the cecum. The ulceration had taken place one and one-half inches from the proximal end of the appendix and purulent material was poured out into the general cavity.

It is often difficult to determine just when to operate in a case of retrocecal appendicitis. Certainly unless called early and the pain or pressure is referred to the loin, with slight resistance over the normal location of the appendix and reson-

ance is prominent over the region, with increased dullness toward the subphrenic area, it is better to wait until there is a well-defined tumor and open in the loin, rather than do the classical McBurney operation in front and run the great risk of infecting the general peritoneum. However, if the case is seen early, the anterior operation is to be preferred, with a chance of removing the appendix before rupture has occurred.

The advantage of removing the appendix cannot be over estimated, and I am sure I express the feeling of the great majority of operators when I say that we never feel quite satisfied with our operative work unless the appendix is removed. This is not always possible, if we consider the welfare of the patient. C. L. H.

THE DOWNFALL OF THERAPEUTICS.

Before the development of the natural sciences placed medicine as an art among the applied sciences, therapeutics was the most important branch of medical study and practice. Among the medical sects the same observation holds true at the present time. During the last half century medical progress, however, the pursuit of exact medical knowledge, has led students chiefly into surgery, diagnosis, pathology and bacteriology. Definite knowledge of the intimate reactions of the metabolic processes of our bodies with foreign agents introduced as drugs is just coming into sight with the growth of the new science of pharmacology, and so, necessarily, therapeutics at present lags behind. All of which is new to no one who sees, and is introduced sim-

ply to draw attention to an unfortunate practical result of this state of affairs. For some years progress in materia medica and therapeutics has seemed almost to lie in the hands of lay manufacturers. With their new compounds, and their disguised old ones, the drug makers have kept the materia medica expanding at an alarming rate. This condition is by no means wholly to be deplored, as the pharmacutists have contributed much to the comfort of physician and patient. However, the tremendous preponderance of commercialism in recent therapeutic progress has brought with it some ill conditions. Money-making attracts the unscrupulous, and the medical profession has difficulty in separating the wheat from the tares. Any good, new laboratory product of therapeutic value is immediately imitated or attacked. There develops intense feeling between foreign and domestic manufacturers, and all the while the poor doctor, as the bone of contention, is overwhelmed with "literature" and "medical journals" (*sic.*) and agents. Contradictions multiply until mercury and quinine appear to be about the only agents of whose qualities the physician may feel reasonably sure! The prize—the patronage of the profession—being of great commercial value, many subterfuges are employed by some to enable them to share in it. Official positions in medical bodies at times are sought, and at other times are appropriated by not too nice strategy. Medical journals are subsidized and new ones are published. A number of makers pay a regular stipend secretly to complaisant doctors here and there over the country, who, in return, are ex-

pected to read "useful" papers and at every possible turn to uphold the wares of the benefactor. Thus it comes that therapeutics has reached its present low state. Scientific physicians give their time to diagnosis and pathology, and limit themselves to simplest measures of treatment. Others make a diagnosis and then choose the remedy that the maker says is best for that condition. Many among us who love the study of means to alleviate suffering have endeavored faithfully to recreate professional interest in pure therapeutics, but the combat with intrenched wealth and monopoly is an unequal one in the face of general professional lethargy. But hope is not to be abandoned.—*Editorial American Medicine.*

THE FORWARD MARCH.

Before going to press we received from Dr. J. J. Norwine, councillor of the tenth district, roster of members, check in payment of dues and application for charter from the Dunklin County Medical Society and Pemiscot County Medical Society; also from Dr. F. B. Hiller, councillor of the first district, roster of members, check in payment of dues and application for charter for the Adair County Medical Society. The result of the activity on the part of members of the judicial council speaks for itself. Our constantly increasing membership gives promise of complete organization throughout the state at a time not far distant. The following is a list of new members received:

Quinn, Ed., Brashear.

Martin, J. W., Kirksville.

Grim, E. A., "

Grim, E. C., "

Trumbower, M. R., Monett.
 Kelley, N. F., Kennett.
 Finney, W. B., Kennett.
 Johnson, G. L., Kennett.
 Rigdon, Thomas J., Kennett.
 Bauldwing, Paul, ———.
 Bond, Van H., Cotton Plant.
 Egbert, Thomas H., Kennett.
 Mobley, A. B., Kennett.
 Cowell, J. F., ———.

Crowe, B. D., Caruthersville.
 Huggens, M. H., “
 Luten, J. G., “
 Phitts, G. W., “
 Byars, H. F., “
 Conrad, A. R., “
 Hendricks, M. B., “
 Martin, Chas., “
 Tipton, Paul, Cooter.

NEWS ITEMS.

Panama Health Conditions.—In a cablegram to the war department Gov. Davis, of Panama, gives the following summary of Isthmus conditions: In the families of the Americans employed on the Isthmus only three cases of yellow fever have occurred, and one death. Of the employes hired on the isthmus, five have had yellow fever and one has died. Among the Americans not employed on the Isthmus, including those of the cruiser Boston, there have been nine cases of yellow fever and five deaths. The total number of cases originating on the Isthmus is thirty-two, of which nine have proved fatal. Six cases are now convalescing. Since the American occupation, the dispatch says, two cases of smallpox have been reported, but none has originated there. There is no typhoid or plague. Of the 4,000 employes, only 3 per cent. are ill of any disease. Governor Davis says that the sanitation of Panama is progressing as efficiently as in any city of the United States. — *Journal American Medical Association*.

The Ultra-Modern Physician.—Dr. Vidal, an old country doctor, was

treating a child aged ten years, suffering with an ordinary bilious attack. The over-anxious parents, who seem to have dabbled in “Be Your Own Physician” books, imagined that they discovered symptoms of tuberculous meningitis. Behind the back of Dr. Vidal, who was the family physician, they called in a young physician who was ultra-scientific. He examined the little patient and left his opinion on a card for the instruction of the behind-the-times Dr. Vidal. The erudite opinion read as follows: “Kernig positive; slight embryocardia, especially in azoulay’s position; cryoscopy and kochibacilloscopy of Quinke’s fluid would supply basis for judgment. If negative, Eberth or Talamon-Fraenkel might be thought of. In the former of these two hypotheses, I could bring, on receiving intimation from you, some chantesse serum; in the second, I could bring a specialist to do Quinke’s puncture.” To this cryptic message Dr. Vidal sent the following reply: “Veni, vidi, vici. Veni: Neitheron bike, nor auto, nor motor, nor in a boat, but in a phaeton. Vidi: Neither myosis, nor mydriasis, nor vasomotor red line, nor Wunderlich-simple syno-

cha. Vici: Naturam sequere. Expectant treatment. The patient goes on under his blankets (without stirring a step), in the words of Sophocles, whom, in spite of his antiquity, I love, towards restitutio ad integrum. Archfraternal thanks to the Quincke specialist." What the young ultra-scientific physician answered Dr. Vidal does not tell us.—*Merck's Archives*.

Anemia in Porto Rico.—The report of the commission appointed by the governor of Porto Rico to investigate the disease known in that island as "anemia," forms a most instructive monograph on uncinariasis. For the commission proved beyond the shadow of a doubt, unless to the minds of certain of the perverse native physicians, that the anemia of Porto Ricans is, in an overwhelming majority of cases, due to hookworm infection.

The economic importance of the disease is shown by the statement that more than 90 per cent. of the rural population of the island is affected. The commission was composed of Drs. Ashford and King, whose previous work upon the subject aroused the interest of the islanders and finally led to the appointment of the commission, and Dr. Gutierrez, health officer of Bayamon. In a little more than five months they treated 5,490 cases of hookworm disease. Of these 2,244 were cured (hemoglobin above 85 per cent.), 377 practically cured (hemoglobin between 70 per cent. and 85 per cent.) and 1,727 improved. In consideration of the fact that many of these patients had been unsuccessfully treated for years with quinine, iron and other tonics, the

true cause of the anemia being unsuspected, no better instance of the great boon of modern medicine to the tropics is required. Regarding the mode of infection in uncinariasis, the members of the commission are very positive that, in Porto Rico at least, the disease is generally contracted through penetration of the skin by larvae of the parasite. Negroes, and possibly Malays and Mongolians, are relatively immune to the disease, even when harboring the parasites; this is a strong argument in favor of the view that the symptom-complex, including the anemia itself, is due rather to a toxin, or toxins, of the parasite than to actual abstraction of blood. The severity of the affection in Porto Rico may be judged from the estimate that it is responsible for 30 per cent. of all the deaths in the island. In the treatment of the recorded cases, thymol was almost exclusively employed. After reading Bentley's results with beta-naphthol, that drug was tried in a few cases with satisfactory expulsion of the parasites.—*American Med.*

Dan McKenzie in *The British Journal of Children's Diseases*, reports a case of appendicitis in a boy of four years. The little fellow was subject to acute gastric attacks, so nothing unusual was anticipated. On the day of the examination he complained of "stomachache" and pain on micturition; the abdomen was found hard and tender, and rectal examination revealed a full fluctuating bladder. Cystic trouble being then suspected, the patient was catheterized under anesthesia, but nothing was found to account for the symptoms. Bimanual

palpitation of the pelvis and abdomen now revealed an oval-rounded tumor about the size of a pigeon's egg in the right iliac region. Appendicitis was diagnosed and operation revealed an appendix perforated in several places, lying in a pool of pus. A child's pelvis is so shallow that a finger in the rectum can palpate the abdomen far more effectually than in later life, and the author emphasized his contention that rectal examination should be undertaken as a matter of routine in all doubtful cases of illness in children where the symptoms point to the abdomen as the seat of disturbance.

The Nathan Lewis Hatfield Prize for Original Research in Medicine.—Five hundred dollars will be awarded by the College of Physicians of Philadelphia, to the author of the best essay submitted in competition on or before March 1, 1906; subject, "The Clinical and Pathological Diagnosis of Sarcoma." Essays must be typewritten, designated by a motto or device, and accompanied by a sealed envelope bearing the same motto or device, and containing the name and address of the author. They must embody original observations and researches. The committee reserves the right to make no award if none of the essays submitted is considered worthy of the prize. Further information may be obtained by addressing Dr. Francis R. Packard, College of Physicians, 219 South Thirteenth street, Philadelphia, Pa.—*Medical Record*.

The Prevention of Smallpox.—Dr. Benjamin Lee, secretary of the Pennsylvania State Board of Health, points out in his annual report, just sub-

mitted, that during the year ended November 1, there were reported in the state 5,172 cases of smallpox, with 521 deaths, which is in marked contrast with the experience of the German army, in which since vaccination and revaccination were made compulsory, thirty years ago, there has not been a single death from smallpox. In the city of Philadelphia, as a result of an active vaccination crusade, the number of cases of smallpox has been reduced from 396 in December, 1903, to 26 in June, 1904, and in Pittsburg from 537 cases in October, 1903, to 15 in March, 1904. At the present time there are only 42 cases throughout the entire state.—*Atlanta Journal-Record of Med.*

Selling Intoxicating Liquors (Nostrums) without a License.—There is one method which has not been resorted to for limiting the debaucheries of the nostrum traffic, and the Women's Christian Temperance Union and other temperance people might well see what can be done by it to abate the evil. It is suggested by a recent occurrence in Illinois. A Greenville merchant was fined \$20 for selling Peruna, containing about 25 percent. of alcohol without a license. It is well known that the nostrum vendors are in fact rivalling the saloon-keepers, and the help of these should also be secured to drive out of competition the depraved drug, grocery, and departmental stores which are threatening the business of those who properly pay a license for carrying on the liquor traffic. The harm done and the expense incurred by the community through the rum sellers should at least be partly offset by the license

fees paid to the public treasury. But the patent medicine sellers evade the law by calling their vile alcoholic mixtures medicines. In this nefarious business the United States Government, with its copyrights and trademarks, protects the nostrum syndicates and drug saloons, and Congress still fails to pass the Pure Food Bill! In such contradictions and immoralities does our system of legislation land us.—*American Medicine*.

The Different Systems of Medical Practice.—Christian science is suggestion, plus absurdity; divine healing, suggestion, plus faith in God; Dowieism, suggestion, plus prayer and holy horror; Wiltmerism, suggestion, plus imagination, pure; magnetic healing, suggestion, plus imagination also; osteopathy, suggestion, plus massage; homeopathy, suggestion, plus nothing; allapathy, suggestion, plus tubs full of drugs, that either kill or cure; regular or rational medicine, suggestion, plus the best common horse sense available, or suggestion and medicine mixed with the best quality of brains obtainable.—*Atlanta Journal-Record of Med.*

Preventive Medicine in the Field.—The military authorities of Japan have permitted but little information to reach the outside world concerning the details of the operations of their armies but such scant news as has been made public shows that she has gone further in the application of preventive medicine in the field than has any other power in the history of the world. We learn that sanitary authorities who accompanied or pre-

ceded the first line of advance examined the waters of the various wells, creeks, and rivers, and labeled such waters as "potable," "non-potable," or "potable only after boiling" for the information of the troops who were to follow. This, coupled with a similar foresight in other directions, has reduced the sick list to a degree which seems almost incredible to those who are familiar with the history of our civil war and the Cuban campaign. We wonder if our own government will profit by this example? We hope for better things than our past experience would lead us to look for.—*New York Med. Journal*.

Dr. Ernest W. Lewis reports the case of a Hindu woman who complained about a painful swelling in the lower part of the abdomen. She gave a history, which afterwards proved false, of a fall several weeks previously. The patient was very weak and had a temperature of 103-2°. A pelvic abscess was found in which some hard substance could be felt. On opening the abscess a piece of stick six inches long was removed, together with a quantity of foul pus. The true history was then revealed, namely, that the stick had been introduced four months previously to procure abortion, and she was successful. The patient made an uninterrupted recovery. This seems to be a common method of procuring abortion in India.

Dr. N. News Wood, Chicago, Ill., of Christian Hospital notoriety, was sentenced to ten days in jail for contempt of court, December 30th, and in addition he was fined \$100 and the

"hospital" \$250, for violation of an injunction restraining them from using the name of Dr. John B. Murphy in connection with the establishment.

Dr. Anita Newcomb McGee has been made a member of the United Spanish War Veterans, and is the only woman holding membership in that organization. Dr. McGee during the war with Spain was commissioned acting assistant surgeon.

Two bills concerning lepers are now under consideration by the House Committee on Interstate and Foreign Commerce. One bill provides for the establishment of a sanitarium for the care of the 275 persons who are said to be lepers in this country, the institution to be located in the arid region of the Northwest. The other bill is one appropriating \$150,000 for the scientific study of the disease in Hawaii.

The first report of the State Hospital for Tuberculosis, at Raybrook, in the Adirondacks, was presented to the New York State Medical Society by the superintendent, Dr. John H. Prior. Of the eighty-two patients admitted, eleven have been discharged as cured. Of the remainder five have not been in the hospital long enough to justify any conclusions, nineteen have apparently recovered; the disease of thirty-four has been arrested, and all the rest show improvement. "The law creating this institution, and under which it has been in operation for a period of six months," says Superintendent Prior, "seems to be eminently satisfactory. It contains many new features which have never before

been tested. The requirements for admission and the methods designed to limit treatment to incipient cases only, will be adopted and tried by several other states in the near future. Thus far it seems unnecessary to advise any changes in the organic law."

Prof. Puschmann has given 500,000 marks to the University of Leipzig to further the study of the history of Medicine.

An original system of educating the blind is in operation in Chicago. In three of the public schools in different parts of the city blind children are received along with the healthy ones. They are first taught the alphabet and a system of reading by a special teacher and then assigned to their proper classes, where they take part in all the ordinary school exercises, have the same books, lessons, maps, etc. Their books are printed in the six dot system, but contain the same material as those of the seeing students. In this way they are kept in touch with the world, where they must live, and not segregated in an artificial life with unfortunates of their own kind.—*Journal Michigan State Medical Society.*

It is reported that the Venezuelan government has adopted regulations whereby all medicines not duly authorized and approved by the board of physicians shall be excluded from the republic. Large quantities of patent medicines have been annually exported from the United States and from other countries to Venezuela, and need of some action to protect the people has been imperative.

COUNTY SOCIETY NOTES.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. H. G. Wyer, President.

Dr. H. T. Randle, Secretary.

The last regular meeting of the St. Louis County Medical Society was held on February 8th at the residence of Dr. H. T. Randle, Clayton. The meeting was called to order at 2:30 p. m. by Dr. H. G. Wyer with eleven members present. The minutes of the December meeting were read and approved, there being no meeting in January. The names of the committees appointed by the president for the ensuing year were read as follows:

Executive Committee.—R. D. Moore, Webster; R. D. Moore, Central; John Pitman, Kirkwood.

Elections and Ethics.—C. L. Armstrong, chairman, Webster; J. D. Pfister, Fern Ridge; N. N. Jensen, Florissant.

Library and Publication.—R. M. Higgins, chairman, Webster; J. C. Gallagher, Valley Park; F. E. Guibor, Maplewood.

The committee on arrangement for a place to hold meetings made their report and were discharged, and a new committee appointed, consisting of Drs. Randle, Kock and Moore. The names of Drs. J. M. Berry and W. R. Hanpeter, with applications for membership, were filed and referred to the committee on election. Under extraordinary business, Drs. Moore and Carter, members of executive committee, spoke emphatically on the subject of papers for meetings, and urged that members do more

writing and put themselves before the society. Dr. Carter suggested more seasonable papers, and stated in his closing remarks, that with "no papers, no society; no society, no scientific men." The communication from the State Board of Health concerning state sanatoria for consumptives was read and approved. Dr. Howard Carter moved that the secretary be instructed to address a communication to the representative of the district in the state legislature and express the sentiments of the society for such a bill. A very excellent and creditable paper on "Scientific Medicine" was read by Dr. H. G. Wyer, of Kirkwood. Dr. John Pitman, who was to read a paper on "Surgery of Carrbru," failed to be present. After a vote of thanks to the hostess and host, the society adjourned.

H. T. RANDLE, Secretary.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. R. T. Sloan, President.

Dr. Max Goldman, Secretary.

On January 26, 1905, at a regular meeting of the Jackson County Medical Society, Dr. Scott P. Child read a paper on the timely subject of "Diphtheria; with Special Reference to Prevalence and Prophylaxis." This essay was an excellent production, treating especially with the methods intended to lower the death rate from this disease and including a commendable review of the statistics and literature upon this subject. In a paper entitled "The Pathology of

Diphtheria," Dr. Frank J. Hall expressed the view that the disease is a general one with a localized focus of infection; also, that the toxine of diphtheria is of a multiple nature, and mixed infections are merely incidental; he also touched briefly upon the pathologic processes occurring within the heart and the cells of the nervous system. Dr. I. J. Wolf opened the discussion of these papers with a few remarks, stating that the present comparatively high mortality is due to first, wrong diagnoses; secondly, late diagnoses; and, thirdly, the administration of too little serum in the early stages. He said the bacteriologic diagnosis was of greatest importance, the clinical of secondary importance. He also laid stress upon the extreme care to be exercised in order to properly procure the specimen from the throat for culture or examinations. Dr. F. J. Hall exhibited a microscopic section of a diphtheritic membrane, with groups of Klebs-Loeffler bacilli therein.

At a regular meeting of the Jackson County Medical Society held on February 9, 1905, two papers of unusual interest were read. The essayists were Dr. O. H. Leonard, whose paper was on the subject of "Hydatiform Degeneration of the Chorionic Villi," and Dr. S. G. Burnett, whose subject was "Mental Inhibition on the Relation of the Neuroses and Premelan-cholias to the Divorce Court." There was a large attendance and many took part in the discussions elicited by the papers.

Dr. Leonard's paper was a thorough and up-to-date review of this disease of the chorion, and included an interesting account of a recent case

demonstrating especially the malignancy of the disease; he concluded by recommending early conservative treatment, keeping in mind the malignant tendency and the liability of general and fatal metastasis.

The discussion was opened by Dr. J. F. Binnie, who spoke briefly upon the surgical treatment: he said that could a serum be isolated which would destroy the precise cause of the disease, viz., the proliferation of syncytial cells, the ideal treatment would be the introduction into the blood of such a serum; at present, however, the proper treatment seems to be the early removal of the uterus and appendages as soon as the diagnosis of the malignant form of the disease is made, the operation in these cases is usually more dangerous than in those ordinarily operated on.

Specimens of vesicular mole, as the above disease is sometimes called, were presented by Drs. F. J. Hall and A. H. Wall, who made some remarks on the cases from which they procured the specimens. Dr. Hall mentioned the theory of "cystic action of ferments" as related not only to the normal development of the chorion, but also to the malignant degeneration of the chorion; anti-bodies, or toxins, he said are produced in both instances in varying amounts; when sufficient anti-bodies are produced in the case of the pregnant uterus, it marks the beginning of labor; if too many are produced, especially early in pregnancy, abortion is likely to occur; in the case of syncytioma maligna not enough anti-bodies are produced. He remarked, also, that this form of chorionic disease is in a class by itself; "morning sickness," a

common symptom of some value, is the result of the action of the toxins or "cytic" bodies on brain centers; microscopic section shows evidence of malignant degeneration with the syncytial cells as causative agents; in some cases we have both villi and syncytial tissue; in others the villi have been lost and we have only the syncytium. He concluded by saying that this disease of the chorion is a syncytioma maligna and the treatment consists in early removal of the uterus.

Dr. S. G. Burnett then read his paper entitled "Mental Inhibition," in which he related numerous conditions and states of the mind which frequently cause disruption of most intimate family ties and often lead on to divorce proceedings in the courts; and which mental states are simply the manifestations of a pre-melancholia or other neurosis which can be benefited by judicious treatment. At this meeting a number of applications for membership were received.

MAX GOLDMAN, Secretary.

HOWELL COUNTY MEDICAL SOCIETY.

Dr. J. W. Bingham, President.

Dr. H. C. Shuttee, Secretary.

The Howell County Medical Society held its regular meeting February 2d, Dr. J. W. Bingham in the chair. On account of the extreme cold weather the attendance was not as large as usual. Dr. J. F. Reiley read a paper on "Gonorrhœa in Women," which was well received and generally discussed. Resolutions were adopted requesting our representative and senator to support the bills creating a new

state board of health and establishing a home for incipient tuberculosis cases. Dr. A. H. Thornburgh, West Plains, joined the society and paid dues for the State Association. The society adjourned to meet April 6th.

H. C. SHUTTEE, Reporter.

BOONE COUNTY MEDICAL SOCIETY.

Dr. J. E. Thornton, President.

Dr. W. A. Norris, Secretary.

The Boone County Medical Society met February 11th, in regular monthly session, at Parker Memorial Hospital, with Dr. J. E. Thornton in the chair. Dr. Max Myer read a paper on "Consideration of the Different Methods of Forceible Dilatation of the Cervix." The paper was discussed by other members of the society. Dr. A. E. McAlester presented a clinic—fracture of the internal condyle of the femur. The society then adjourned to meet the first Monday in March.

W. A. NORRIS, Secretary.

ATCHISON COUNTY MEDICAL SOCIETY.

Dr. L. J. Martin, President.

Dr. A. McMichael, Secretary.

The Atchison County Medical Society held its regular meeting in Tarkio, January 17th. Dr. E. E. Richards called the meeting to order for the purpose of holding the annual election and arranging for an interesting program for the next meeting. The election resulted as follows: President, L. J. Martin; vice-president, G. W. Lott; secretary, A. McMichael; treasurer, S. D. Smith; censors, L. J. Martin and A. McMichael; reporter, J. A. Postelwaite.

And now the readers of the JOURNAL MISSOURI STATE MEDICAL ASSOCIATION may have the pleasure of reports from Atchison County Society written by one who wields the pen of a literary master; and, too, we are promised papers which may add great value to the reports from this county. Some of the papers read before each meeting will be sent to the JOURNAL to abstract and incorporate in our reports. The society adjourned to meet in Rockport, Tuesday, April 11th, at which time we are promised a good attendance and some of the most excellent papers ever read before the society.

AUSTIN McMICHAEL, Secretary.

ST. LOUIS MEDICAL SOCIETY.

Dr. F. L. Henderson, President.
Dr. T. A. Hopkins, Secretary.

REPORT OF THE ST. LOUIS MEDICAL SOCIETY,

January 1 to February 11, 1905.

The first meeting of the year was held January 7th. The officers elected for the ensuing year were in control, Dr. F. L. Henderson, presiding.

Dr. Henderson delivered an inaugural address, which was remarkable, in that it was a sincere heart-to-heart talk with the members of the society on matters relating to the advancement of the society, as a power in social, financial, political and scientific circles. The address was enthusiastically received, and many members openly expressed their admiration of the manner in which the subjects, bearing on the direct welfare of the society, were handled.

Dr. Henderson announced the names of members of the various committees

to assist in the work of the ensuing year, as follows:

Committee on Election.—Dr. L. E. Newman, Dr. Amand Ravold, Dr. L. T. Pim.

Committee on Publication and Debate.—Dr. Robert Barclay, Dr. W. H. Stauffer, Dr. W. B. Shields.

Executive Committee.—Dr. Joseph Grindon, Dr. G. C. Crandall, Dr. W. W. Graves.

Library Committee.—Dr. N. B. Carson, Dr. F. J. Lutz, Dr. W. B. Dorsett.

Committee on Pathology and Microscopy.—Dr. Hugo Summa, Dr. W. Bartlett, Dr. M. D. Jennings, Dr. E. F. Tiedemann, Dr. L. Harriss.

Committee on Public Health and Legislation.—Dr. John Young Brown, Dr. George Homan, Dr. H. J. Scherck.

A committee consisting of Drs. A. R. Kiefer, L. S. Luton and V. P. Blair was appointed to consult the trustees of the Medical Library Association, for the purpose of securing a permanent meeting place for the society.

The following papers have been presented for the consideration of the society:

Dr. T. C. Witherspoon presented a paper on "Developmental Displacement of the Abdominal Viscera with Demonstrations." The paper was interestingly discussed by several members.

Dr. John Young Brown presented a paper and four recent cases of "Intestinal Resection for Perforating Gunshot Wounds of the Abdomen," occurring in practice with Drs. W. Doyle and W. C. G. Kirschner at the City Hospital. The resections were seven feet, six feet, two feet and eighteen inches. Dr. Brown empha-

sized the necessity of immediate operation and thorough exploration of all cases presenting perforation, or any likelihood of such, and cited numerous cases to justify his remarks. The paper was discussed by many of the members, especially by those interested in surgical work.

Dr. H. J. Scherck presented an x-ray picture of an anomalous condition existing in the thumbs of a patient recently under his observation. An extra joint was plainly shown in each thumb. No irregularities in outline were noted and the owner was in no way inconvenienced.

Dr. R. M. Funkhouser presented a paper on "Phlebitis Following Abdominal Operations." He stated that the cause of such a phlebitis is usually obscure, and from a summary of four cases, observes that the condition usually occurs in the left leg. His last case was complicated by a neuritis, which extended the duration of the disease to nearly two years. The paper was discussed by Drs. Morris, Jonas, Kiefer and Moore.

Dr. N. B. Carson presented a "Specimen of Carcinoma of the Stomach," and read a history of the case. His observations led him to believe that no one symptom is absolutely pathognomonic of cancer of the stomach, that the complete history of the case and all symptoms must be considered to give a correct diagnostic opinion. He believes that after a thorough clinical and laboratory diagnosis has been made, at least an exploratory operation should be made, regardless of the presence or absence of a tumor mass. If a tumor is found, a free incision into the stomach should be made, with a view of obtaining all

possible information as to the nature, extent and necessary measures to be taken in removal of the neoplasm.

He stated that the danger of an exploratory operation at the present day of advanced technique, and aseptic surgery was practically nil, and this opinion was indorsed by those who discussed the paper.

Dr. W. E. Fischel opened the discussion and stated that in his opinion no one symptom was pathognomonic and that a careful consideration of all data, history, clinical and laboratory must be made in order that a clear diagnosis, prognosis and course of treatment may be made for the patient. The subject was also discussed by Drs. Myer, Brown, Snodgrass and Shattinger. Dr. Snodgrass presented some interesting statistical information in regards to laboratory findings in examination of stomach contents for carcinoma, showing that hydrochloric acid is rarely entirely absent and that lactic acid is usually present only in small amounts.

At the meeting of February 4th the death of Dr. Wm. Johnson was announced to the society. Dr. Henderson appointed eight members as honorary pall-bearers, and a committee consisting of Drs. Wm. McPheeters, F. J. Lutz and R. M. Funkhouser to draft resolutions in memory of Dr. Johnson. Dr. Funkhouser read the memorial of Dr. Johnson and it was indorsed by the society, and a copy of same ordered presented to Mrs. Johnson. Dr. Johnson was one of the oldest and most constant members and was an indefatigable worker for the best interests of the society.

New members have been elected to membership of the society, as fol-

lows: Dr. E. H. Henckler, Dr. W. A. Wilson, Dr. F. W. Patton, Dr. S. T. Vandover, Dr. F. P. Mawn, Dr. W. H. Mook, Dr. C. C. Drace, Dr. E. J. Viedt, Dr. D. B. Garstang, Dr. E. P. North, Dr. Chas. N. Guhman, Dr. A. C. Kimball, Dr. R. F. Amyx.

At the meeting of January 21st a reporter to the *State Medical Journal* was considered; on motion of Dr. Nicholson, Dr. Cleveland H. Shutt was elected to the position.

The treasurer's report shows that the society never was in a better financial condition, and that we have only eight delinquent members. A good showing for Dr. R. M. King, the treasurer, and for the enterprise and active interest which the members manifest.

C. H. SHUTT, Reporter.

HENRY COUNTY MEDICAL SOCIETY.

Dr. J. H. Britts, President.

Dr. F. M. Douglas, Secretary.

The Henry County Medical Society met in regular session February 8th, Dr. John H. Britts presiding. The minutes of the previous meeting were approved as read. The society then took up the subject of medical legislation. The bill before the present legislature, which has been so widely discussed by medical societies all over the state, was very liberally considered. Some features of the bill were favorably received, others met with adverse criticism. The secretary reviewed medical legislation in Missouri at some length, pointing out certain features in notable bills which had passed the legislature of 1877 making it a misdemeanor to practice medicine or surgery in the state of Mis-

souri without filing with the county clerk a diploma conferring the degree doctor of medicine, said diploma granted by a college of medicine duly established by law. A fine was provided of not less than one hundred dollars or more than five hundred dollars. The law made it the duty of the prosecuting attorney to take cognizance of violations of its provisions and bring the matter before the grand jury. The law of 1883 created the state board of health, with power to issue certificate to practice either on presentation of diploma or satisfactorily passing examination, all who had practiced for five years previous to the passage of the bill being exempt from its provisions, except that they were required to appear before the board to be granted certificate to practice. Certificates were to be filed with county clerks. Failure to comply with the provisions of this law is made a misdemeanor, punishable by a fine of not less than fifty nor more than five hundred dollars. Provision was made by this act for vendors of drugs or appliances for the treatment of the sick, who were licensed for a fee of one hundred dollars a month. No special provision was made for the enforcement of this law. The law of 1901 made it unlawful for any person not a registered physician holding a license from the state board of health, and that license recorded with the county clerk, to practice medicine and surgery in any of its departments or to profess to cure or treat the sick or those afflicted with bodily or mental infirmities in any manner or by any appliances. A fine of not more than five hundred dollars or imprisonment for not more than six months, or both,

is provided for violation of this act. The state board of health is given the right to refuse to grant a certificate or license or to revoke the same for unprofessional or dishonorable conduct. This law repealed the itinerant vendor's act, but made no provision for enforcement.

Dr. Britts tendered his resignation as president of the society because of his many other duties taking up most of his time, and asked the society as a favor to elect Dr. Shankland to fill the unexpired term. On motion of Dr. Gibbins the resignation was accepted, and Dr. Shankland was elected.

F. M. DOUGLAS, Reporter.

JASPER COUNTY MEDICAL SOCIETY.

Dr. A. B. Freeman, President.

Dr. J. T. Stamey, Secretary.

The Jasper County Medical Society held its regular meeting in the parlors of the Y. M. C. A., with President Dr. Robt. L. Neff in the chair. This being the last meeting in the old year, the society proceeded to the election of officers, which resulted as follows: President, A. B. Freeman; vice-president, J. D. Pifer; secretary, J. T. Stamey; treasurer, G. W. Miller. Dr. L. I. Matthews, censor for three years, to take the place of Dr. Blackwell, whose time had expired; this leaves the board of censors as follows: Dr. Ketchum for one year, Dr. Kincheloe for two years, and Dr. Matthews for three years. Dr. C. C. Cummings was re-elected reporter for the new year. Dr. Neff, the retiring president, read an able and scholarly essay on the progress made in medicine and surgery during the last year.

Dr. Lanyon announced that the "smoker" which the committee had planned was ready at 613 Main street. There being no further business the society adjourned, after which they repaired to the banquet hall.

C. C. CUMMINGS, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.

Dr. C. A. Jennings, Secretary.

The Chariton County Medical Society met in regular session in the office of J. Franklin Welch, Salisbury, January 26th, being called to order by Dr. H. E. Tatum. The minutes of the preceding meeting were read and approved. A clinic presented by Dr. L. A. Bozan brought forth much enthusiastic discussion. Dr. M. B. Austin read an excellent paper on "Scabies." Drs. C. A. Jennings, I. Knott and A. W. Zilman were appointed essayists for the next regular meeting, to be held in Salisbury, February 24th.

WILFRED L. BAKER, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. A. W. Moore, President.

Dr. C. W. Watts, Secretary.

The Howard County Medical Society met in regular session in the office of Dr. C. W. Watts, Fayette, February 21st, Dr. A. Moore presiding. The minutes of the January meeting were read and approved. The president introduced the subject of syphilis for general discussion. Communications were read by the secretary, one from the St. Louis Medical Society and one from the St. Louis City Hospital

Alumni Association urging the Howard County Medical Society to appeal to the representatives of this district to do what they can toward passing the bill providing for the building by the state of an institution for the care and treatment of tuberculous patients. We have written urging our representatives to act at once, as this

matter concerns the health of the whole state, and we recognize its vital importance. "Proper care for our tuberculous patients" should be the watchword of every progressive person in Missouri. Papers will be read at our March meeting by Drs. Wright, Lee and McGee.

C. W. WATTS, Reporter.

ABSTRACTS.

The Teaching of the History of Medicine.—It will, I believe, be admitted that the average physician of to-day, although he knows much more about disease and is far better equipped to treat human maladies, is possessed of much less culture and refinement, and occupies a position much lower in the regard and esteem of his fellow citizens, than the physician of fifty or a hundred years ago. This condition of affairs is largely due to the tendencies of modern education. There is a very general movement toward abbreviating the so-called undergraduate studies of students who seek a medical education in order that more and more time may be given to strictly professional work. It seems to be taken for granted by those in charge of general educational affairs that it is important to make it easier for a young man to acquire a medical education, and the natural result of this will be that more and more of the young men of the future will take up the study of medicine. Were there a dearth of physicians in our communities there might be some reason for encouraging young men to study medicine, but there being, as is well known, many more physicians in

nearly all of our communities than are needed, it seems to me that a medical education should be made more difficult instead of easier to obtain. I believe, too, that we should have better physicians and that our profession would stand higher in the public esteem if more attention were given to the study of those subjects which make for the general culture of the individual, not only in undergraduate life, but during the years of professional training as well. It is true that the horizon of medicine is constantly widening and that the hours of medical study are lengthening and becoming more and more crowded with the new details of anatomy, pathology, diagnosis, and treatment which he must master. These facts, however, do not seem to me to be good reasons for shortening either the term of preliminary education or the term of medical education, but rather, in view of all the facts, I should consider them good reasons for lengthening both terms. True, if we make it more expensive and more difficult to obtain a medical education, we shall have fewer aspirants for the medical degree. This, it seems to me, would

be a more desirable condition of affairs than exists at the present time. We need to educate fewer physicians, and we need to educate them more broadly and better. It is not sufficient for our medical schools to turn out men who are masters of the human machine, as a machine, but we need cultured, educated physicians with a breadth of mind which will make them students of human nature as long as they live and which will enable them to stand as leaders among men. Men so educated should have a knowledge, not only of the medicine of to-day, with some foresight into the medicine of the future, but also a knowledge of the medicine of the past and of the lives and struggles of those who have made the medicine of to-day what it is. Therefore, I would have the history of medicine taught as a part of the curriculum of all our medical schools.

There is no department of education which does so much to broaden the individual and give character to culture as the study of history, and no branch of human knowledge can be mastered, in the broadest sense of the word, without studying the history of the lives and struggles of those who have previously labored as pioneers in the same field. As a profession, we do not cherish and honor as we should the heroes of medicine, and if we ourselves are ignorant of the traditions and history of our science and pay little heed to them, is it any wonder that others, not of our profession, should have little knowledge of them? The names of those who have achieved great deeds in other walks of life are sung by the poet, written by the story-teller or

recorded with reverence by the historian, and their names are writ high upon the tablets of the Halls of Fame. Why should the names of the masters of medicine be forgotten and neglected? It is because we neglect them ourselves. Students of medicine are elaborately instructed concerning all the special branches of medicine and surgery, but they gain no knowledge as to who were the pioneers along the special lines they are studying, as to who first recognized and described certain diseases, who first devised and performed certain surgical operations or who first discovered and accurately described the structure and functions of certain organs. Names, to be sure, are often used, but more as adjectives than as proper nouns, since many diseases, surgical operations and anatomical structures have been given the names of those who first described them, but nothing is taught as to who these persons were, when or where they lived or what their influence was upon the science of medicine. Those who have not had their taste stimulated by at least a brief sketch of the wonderfully fascinating story of the history of medicine are deprived of a very great pleasure, the pleasure of knowing where to look and how to look and of wanting to look for more knowledge about the early history of some special department of medicine in which they are especially interested.

I am not advocating an exhaustive and elaborate course of study on the history of medicine, such as is given in our universities on general history, but it is rather a brief account of the different periods of medical history, with sketches of the lives of the lead-

ing men in each period, and a more or less detailed description of the great discoveries which have made epochs in the history of medicine, which should form a part of the broad education of every physician. Open the volume here and there and give the student a taste of its interesting contents, and he will eagerly turn to the pages himself in later life with ever-increasing pleasure and profit. There has been of late years an awakening of interest in the subject of medical history, but as yet it has not reached our medical schools, except here and there, and so far as I know there are but two regular courses of lectures given upon this subject in the United States. I feel sure, however, that the time is not far distant when the importance of broader medical education, and education which will tend to produce medical men of deeper learning, of more culture, and of greater refinement will be recognized, and when in the broader curriculum of the future there will be included a systematic course of teaching on the history of medicine.—BURNSIDE FOSTER in *New York Med. Jour.*

Vaccination of School Children Sustained by Court of Appeals in New York State.—*Opinion of the Court:*

“The appellant claims that vaccination does not tend to prevent smallpox, but tends to bring about other diseases, and that it does much harm with no good. It must be conceded that some laymen, both learned and unlearned, and some physicians of great skill and repute, do not believe that vaccination is a preventive of smallpox. The common belief, however, is that it has a decided tendency

to prevent the spread of this fearful disease and to render it less dangerous to those who contract it. While not accepted by all, it is accepted by the mass of the people as well as by most members of the medical profession. It has been general in our state and most civilized nations for generations. It is generally accepted in theory and generally applied in practice, both by the voluntary action of the people and in obedience to the command of law. Nearly every state in the Union has statutes to encourage directly or indirectly to require vaccination and this is true of most nations in Europe. It is required in nearly all the armies and navies of the world. Vaccination has been compulsory in England since 1854, and the last act upon the subject, passed in 1898, requires every child born in England to be vaccinated within six months of its birth. It is compulsory, or is aided, encouraged, and to some extent compelled, in the other European nations. It is compulsory in but few states and cities in this country, but it is countenanced or promoted in substantially all, and statutes requiring children to be vaccinated in order to attend the public schools have generally been sustained by the courts.”

The opinion further states that a common belief, like common knowledge, may be acted on by the legislature and the courts without proof, and the fact that it is not universal is not controlling, for there is scarcely any belief that is accepted by every one, and what the people believe is for the common welfare must be accepted as for the common welfare. “While we do not decide, and cannot

decide, that vaccination is a preventive of smallpox, we take judicial notice that this is the common belief of the people of the state, and with this fact as a foundation, we hold that the statute in question is a health law, enacted in a reasonable and proper exercise of the police power."—*New York Medical Journal*.

Advice to Patients with Venereal Disease.—The following instructions are printed by the Ohio State Board of Health and sent in circular form to practitioners for distribution among their patients suffering from venereal disease:

Circular of Information Adopted by the Conference of State and Provincial Boards of Health of North America.

Issued by the State Board of Health of Ohio.

We hand you this leaflet believing that you would not willingly communicate your disease to some innocent person.

Many fail to comprehend the exceedingly disastrous results that often follow these diseases. Many cases of blindness, complete disability, and not infrequently death result from them. Gonorrhœa is one of the most frequent causes of diseases peculiar to women. So serious a menace have these diseases become to the public health that the medical profession and sanitarians in all countries have

become alarmed, and are advocating measures for their prevention.

Syphilis (pox) is especially a disease from which innocent persons may suffer, as it usually produces sores in the mouth or on the lips, hence may be conveyed by kissing, drinking from the same cup, or using anything which has been put to the lips or into the mouth of one affected by the disease.

These diseases are often communicated when the patient thinks he has recovered. Hence marriages contracted at this time of the disease result in much unhappiness, and often in the death of the wife. To protect yourself and others, we earnestly advise the following in the interest of prevention of your disease:

Follow strictly the advice of your doctor, and use no other treatment.

Remember that it takes a long time to recover entirely.

Carefully wash your hands with soap and hot water whenever you handle the private parts.

Do not have intercourse and avoid all sexual excitement until your physician says you are completely cured. Be especially careful not to rub your eyes with your fingers.

Do not allow any person to use any cup, glass, spoon, fork, or anything that you have had put in your mouth.

Do not kiss any one or wipe the face of a child with a handkerchief you have used. Always use a separate towel. Burn all cloths or cotton soiled by discharges.

SOCIETY PROCEEDINGS.

THE ST. LOUIS MEDICAL SOCIETY.

REPORT OF A CASE OF HYDROPHOBIA (RABIES).

Meeting of January 28, 1905.

Dr. B. A. Wilkes read this paper, for which see page 469.

DISCUSSION.

Dr. Joseph Grindon said Dr. Fisch had told them what the Naegeli bodies were not. Could he tell what they were?

Dr. A. R. Kieffer had been an eye witness to a well-marked case of hydrophobia. The patient was a man about forty-eight years old, of unusual physique. He had been bitten in the hand by a dog, and had the wound cauterized at once. Forty-six days afterward he found, upon arising one morning, that he could not drink water owing to a spasm of the muscles of deglutition. The spasms increased in frequency throughout the day. Dr. Kieffer's vigil commenced that night, and the next evening the man died. This man had none of the barking of a dog, none of the dread of water, but could not control the muscles of deglutition. Immediately he would try to swallow there would be a spasm. He did not attempt to do bodily violence to anyone, though he feared this, and, as he was perfectly conscious, insisted upon everyone staying out of the room. At that time the belief was growing in the country that hydrophobia was merely a nervous explosion due to

a dread of the disease. This case furnished a good opportunity to refute that theory. The dog that had bitten the patient had also bitten a steer on the same date. The steer became mad and died.

REPORT OF CASES—SEVERE ELECTRICAL BURN.

Dr. Ernest H. Spooner reported a case of severe electrical burn. The patient was a young man of twenty-six, had received six thousand volts and was still alive. The index finger, thumb and wrist of the right hand were partly burned through; the left arm was burned through; the tendons at the wrist and part of the palm were badly burned. The left leg was burned about the knee and some of the tendons severed, and in falling some twenty feet, where the foreman of the works caught him, he got a bruise between the shoulders and part of the scalp was severed. His temperature had not been over 101, there was no pus except a very little in the right foot, but necrosis had set in in the right hand very freely. If there was anyone present who had had experience with such a condition and would offer suggestions, they would be very welcome.

Meeting of February 4, 1905.

PHLEBITIS FOLLOWING ABDOMINAL OPERATIONS.

Dr. Robert M. Funkhouser read a paper with above title, for which see page 461.

DISCUSSION.

Dr. C. C. Morris said phlebitis following abdominal operations was due to different causes. Fortunately, the condition had a low percentage—Kelley stating that less than one in one hundred occurred in his experience. He had one case following the removal of a large ovarian cyst. The patient had been tapped about thirty times, the last time about three weeks before the operation. There

were no adhesions, but a single pedicle, and the operation was performed without any difficulty. Phlebitis in the left leg developed in about two weeks. The condition was treated with warm applications of lead and opium covered with rubber tissue, and the patient recovered in about six weeks.

Dr. Ernest Jonas said that at the last meeting of the American Surgical Association Dr. Richardson, of Boston, classed this condition as among the unavoidable accidents after operation. Dr. Richardson said that none of the reasons given by Dr. Funkhouser were

sufficient to be considered as the real cause of the condition. Dr. Funkhouser mentioned tight bandaging, but the speaker had seen the very same trouble arise with simple collodian dressing. Good circulation might sometimes be responsible for this condition. Young, healthy individuals sometimes submitted to operation, as in appendicitis cases, for instance. A man used to an active life is put to bed, and in this way there is taken away from him the muscular power of pumping the blood through the lower extremities onward toward the heart. Stagnation established in this manner might have something to do with the condition. The constipation given as a reason might help to produce thrombosis on the left side, as the pressure of the sigmoid flexure upon the iliac vein might result in an impeded circulation. One other fact might explain why this condition is more frequently found on the left side, and that is the anatomical course of the veins. At the division of the vena cava into the right and left common iliac veins, the right iliac vein passes under the right iliac artery, while the left iliac vein passes, first, under the right iliac artery and then crosses over and passes beneath the left iliac artery. He had heard this suggestion made by Dr. Keen, of Philadelphia.

Dr. A. R. Kieffer said phlebitis had occurred once in his experience in a case of recurrent appendicitis. The operation was very simple, and in a week the stitches were taken out. Two days later patient had some pain in one extremity, but thought it was rheumatism, but it was soon found to be a phlebitis. An unusual case was caused by the tipping over of a stool when boarding a train. The patient was found to have a swelling of the calf of the leg, and thought an abscess was forming. He returned to St. Louis, and the speaker was called in. He applied a poultice, but found that no abscess was forming, but that it was an ordinary phlebitis, and he explained the danger of a breaking off of a piece of the clot. The patient, however, was a traveling man, and his house got impatient and forced him out against the physician's advice. Exactly what occurred after he had reached his room in the hotel at Little Rock

would never be known, but the next morning the man was found dead where he had fallen with bleeding from the mouth.

Dr. W. G. Moore said that last summer a year ago he had been called to see a young man who had been in perfect health. He had spent his vacation in the east, and said he had walked something like a million miles. He sent for a physician on account of a soreness in the leg. It was an unmistakable phlebitis, and developed in both legs. At the end of three days from the date of the attack he felt he was doing so well that he would go to the office on the following Monday. This was on Saturday, and he was resting in bed comfortably. His wife took some strawberries to his room, and he asked her why she did not bring him a good dinner, turned over to eat the berries and died instantly. Dr. Moore had seen several cases in typhoid fever, but this was unique in that it occurred in both limbs and in its fatal termination.

Dr. Funkhouser, in closing, said, in regard to the peculiar anatomical distribution of the veins, attention had been called to that by Vandivere in 1900. In this case he knew all that was to be known of it. There was no soreness during the first nine days. Another point was that it was so long in getting well. She was operated upon in September, 1903. He might have considered it simply a coincidence that this phlebitis developed after the appendectomy, but that so many cases occurred after abdominal and pelvic operations. He had already called attention to the fact that in recovering from the appendicitis she had more or less pain in her legs, although then there was to be seen no inflammation. Another point of interest was that after the symptoms of phlebitis subsided neuritis occurred. He could understand how the other condition might have had a great deal to do with the neuritis. The leg was beginning to show a slight shrinkage, an atrophic condition due to lack of exercise. Although he believed the proper treatment of neuritis was rest, he did believe that in such a case they would be amiss not to use massage. He had discussed this with a number of physicians, and with one consent they had said not to try massage.

PRESENTATION OF CASES.

Dr. John Young Brown presented four patients on whom he and his assistants, Drs. Wm. J. Doyle and Walter C. G. Kirchner, had operated for multiple bowel perforations, the result of perforating gunshot wounds of the abdomen. All of these cases were resection cases; in one case seven feet two inches of small bowel were resected; another six feet, another two feet and another eighteen inches. All cases had been operated on immediately on admission to the hospital, and the methods followed in each case were practically the same. He wished to call special attention to the importance of systematic search in dealing with cases of this character. He recommended that the stomach and transverse colon be first examined, that the colon then be thrown back and the small bowel picked up at the angle of Tritz, as is done in gastro-enterostomy work. The small bowel is then traced to the ilio-cecal valve, the large bowel is then gone over. By a systematic search of this character it is impossible to overlook perforations.

In regard to resection of bowel in cases of this character he was convinced that the button furnished the best means of making an anastomosis. Of the four patients presented, the button was used. He felt that irrigation with hot salt solution was beneficial not only for cleansing the abdomen of extravasated fecal matter and blood, but it acted as a powerful stimulant in such cases.

Regarding drainage, he was convinced from a wide experience that gauze should never be used as a drain. He advocated the use of the glass drain introduced through a stab wound above the pubes and tube placed in vesico-rectal pouch, the patient put in the exaggerated Fowler position immediately and the tube cleaned by suction.

He requested the society to examine the patients, and called attention to the perfect healing of the long wounds, as shown in each case. He considered the group of cases presented of great interest, and through the subject of gunshot wounds should be fully discussed, as there were many patients dying daily all over the country whose lives could be saved by early and thorough work.

DISCUSSION.

Dr. H. C. Dalton expressed appreciation of Dr. Brown's cases and his manner of presentation. The cases spoke for themselves. His remarks had been very interesting, especially the manner in which he made the investigation. A very important point was that when the abdomen was opened a search should be first made for bleeding wounds. The speaker had lost one case by simply stitching up the wounds as they appeared. The patient was getting rapidly weak, and he found the mesenteric artery bleeding profusely, and he believed the patient had lost his life in consequence of this. The point Dr. Brown had made, that perforation was sufficient warrant for opening the abdomen, was generally accepted. At a meeting of the Missouri State Medical Association a surgeon had stated that he would always wait for symptoms before opening the abdomen. Such symptoms simply meant peritonitis, and that was a death certificate in these cases.

Dr. Malvern B. Clopton said there was a certain significance attached to the part of the intestine injured. The percentage of recoveries was influenced by the distance of the injury from the pylorus. The time that elapsed before operation was also of great importance.

Dr. Willard Bartlett also wished to know what part of the intestine had been removed, but asked for another reason. The physiological importance of the small intestine decreased as it left the pylorus, and for that reason he desired to know what portion had been removed. It was astonishing how much of the intestine could be resected. He wondered if Dr. Brown could tell them just how much intestine had been resected. The greatest he knew of was twelve feet, but he knew that more than that had been resected. Two points had interested him particularly; one was in regard to the glass drainage tube. He had not used a glass tube since having found one broken in the abdomen. He had found the woman, who had been operated upon a day or two before, with the glass tube broken in several pieces. He had picked out the pieces, and nothing happened. Nobody

could explain how it occurred. The patient was not aware that the tube was broken. This circumstance had kept him from ever putting a glass tube in the abdomen, although it did drain better in the hands of others who used it. He said that he would like to know what size vessels of the mesentery could be torn off without gangrene. Recently, in operating upon an interim appendix case, in which everything was favorable, he had inadvertently put his hand through the mesentery and torn off two small arteries. He had labored under considerable consternation, and his first thought had been to resect that portion of the bowel, but the anesthetist said the patient could not stand anything of that kind, so he had simply closed the abdomen after ligating the vessels. The patient's bowels moved next day, and she called for food on the second day, and had made uninterrupted progress. The two arteries were torn within half an inch of the intestine. Dr. Bartlett appreciated Dr. Brown's paper the more because the City Hospital men got most of these cases, consequently their remarks were instructive.

Captain Llewellyn Williams, as a military surgeon, was interested in Dr. Brown's paper. After seeing the witnesses and hearing his paper he agreed that operation was indicated. But he doubted whether in all penetrating wounds the abdomen should be opened and explored. Their experience at Santiago had proved that. The conditions in the field were very different from those in the hospital. The bullet used in the army was of a very different character. The army bullet was a 30-caliber, nickel-tipped bullet, traveling at a much greater velocity and making an entirely different wound. He had seen any number of wounds at Santiago from which the patients made a remarkable recovery under nothing more than expectant treatment. It was true that he had no way of knowing that the wounds in the abdomen had been perforating wounds, but from the wounds of entrance and the wounds of exit it seemed almost impossible to believe that they did not perforate. In one case that he remembered the bullet entered the right groin and passed out through the left kidney. The patient was carried fifteen miles, but made a recovery. Wounded men receive attention on the firing line, at the dressing station, at the ambu-

lance station and at the field hospital. The field hospital must necessarily be a long way from the advancing troops. By the time the patient had reached the field hospital, if he had had a perforating wound, peritonitis would certainly have set in. The mortality, when the abdomen was opened by even skilled operators, was extremely high, while, where they were not handled, many made excellent recovery.

Dr. Paul Y. Tupper said that his experience along the line of Dr. Brown's paper was not great enough to warrant his being dogmatic, but it enabled him to appreciate fully the practical points of the essay. He thought the point relative to liver hemorrhage well worth consideration. The attempt to control such hemorrhages by stitches frequently results in failure and embarrassment and the operation is thus unduly protracted. It is eminently practical to control liver hemorrhages by packing and because of its effectiveness and quickness of application it is preferable to the suture method. He had not found the gauze drain a satisfactory one and not infrequently disastrous results are produced in removing the drain. It becomes firmly attached to the intestines and in removing it, when the serous covering suffers injury, there frequently follows a fecal fistula. The old-fashioned glass drain, notwithstanding Dr. Bartlett's experience, appealed to him. He had seen one broken, but this probably resulted from a little awkwardness on the part of the one doing the dressing. A wick was being carried into the depth of the tube with a long narrow pair of forceps and in some way the tube was broken by the impact. This, however, should not have occurred and is no argument against the glass tube. A matter of the greatest moment in gunshot wounds of the abdominal cavity is the injury to the blood vessels supplying the intestines. Immediately after the injury it is difficult to tell definitely, because of the peculiar fanshaped arrangement of the arteries, from how much of the intestine the blood supply is actually cut off. The anastomosis of the vessels, though active and rich cannot with too great certainty be relied upon. It is better to err on the extreme of excising a little too much of the intestine than to making the section within the area of doubtful blood supply.

Dr. Brown has struck the right note in emphasizing necessity of quick, effective work with minimum blood exposure.

Dr. A. R. Kieffer said that one of the greatest questions in surgery was the matter of drainage. In putting in a drain the opportunity for after-treatment had not been emphasized. He believed it was the experience of everybody that they had been convinced of having infected a wound from examining a wound even so late as at the time of removing the sutures. To put in a glass drain after the method of Dr. Brown required that it be emptied every three or four hours. Every precaution must be practiced every time it was emptied. Until the area had been walled off one must be absolutely aseptic and that was a condition of affairs that could be trusted to very few assistants and fewer nurses, and in a field hospital he imagined that it would be pretty nearly impossible. The objection that a gauze drain adhered to the bowel could be overcome by wrapping it in gutta percha tissue. Another advantage was that it was not necessary to remove it as soon as was usually done. If it was doing no harm it was a good idea to leave it until the adhesions were stronger. He had never regretted leaving a drain in. Of course, if there was a large wound and danger of hernia afterward, one would want to remove the drain early. He knew of no plan that presented so great an opportunity for draining and so little opportunity for doing damage as the Mikulicz plan, it could be removed so easily without injury to the adhesions, pulling it diametrically perpendicular to the surface one was working on.

Dr. Robert Funkhouser wished to emphasize a point brought out by Dr. Dalton, namely, the necessity for finding all the bleeding points. During the past four years he had been reminded of that by seeing cases in which that had not been done. Whether it was due to an oversight or the inability to discover the bleeding points, he did not know, but the parties had come to their death from hemorrhage. The most difficult places to control hemorrhage were in liver and spleen, and Dr. Brown's method was most excellent. While it might be best to open the abdomen in every case, from information he had received from a brother at Santiago, from what he had since read and

from Captain Williams' remarks, the evidence seemed to be against opening the abdomen in military practice. The mortality was evidently greater where these cases were operated upon than when they were let alone. He had heard (though he was not certain that the information was correct), that the Japanese did not, as a rule, pursue the practice recommended by Dr. Brown, yet their mortality had not been great. So perhaps it would be correct to observe the rule of Dr. Brown in civil practice, but it was a question whether it should be the rule in all practice. He had had but little experience with gunshot wounds in private practice, but he preferred the wick covered with gutta percha. He questioned whether the glass tube was best, it certainly was not where the ends were perforated. He believed the ideal drainage was gauze surrounded by some material. The one he preferred was rubber, so as to prevent adhesions.

Dr. John C. Morfit said that these patients spoke for themselves and he asked the essayist to say something for those who had been operated on under similar conditions and could not speak for themselves. In these cases, aside from the superb technique practiced in the city institutions, there were several points of interest; one was the immediate operation. In the case where seven feet of the intestine had been removed the patient had been operated upon within an hour. He had a chance to operate before hemorrhage had more than begun. The relative time at which such cases were gotten in civil practice and in military practice put them under a different head, there was a different prognosis and a different mortality. Another point was the position. The question whether a gauze or a glass tube was used was of less importance than the position.

Dr. Francis Reder considered the character of the work of Dr. Brown most excellent in every respect. The doctor had referred to bad surgery of the stomach. He thought that a man qualified to enter the abdominal cavity would hardly look at any entrance in the abdominal cavity as bad surgery. In anterior and posterior wounds of the stomach it was not always an easy matter to get at the posterior wounds. He had had one case where he had enlarged the wound in the anterior wall and caused the posterior wound to

come to view and had closed it, placing a purse-string suture around it. As to opening or not opening the abdomen, there was one thing the military surgeon had to his advantage, and that was that there was often an empty alimentary tract, and possibly it was to that fact that might be due some of the happy results in cases not operated upon. The question of drainage would be always discussed. By placing the patient in the exaggerated Fowler position it gave a cup to receive the drainage and it seemed only reasonable to place the drainage tube in the lowest part of that cup. The gauze drain was a very poor drain in the abdominal cavity, and he had come to the conclusion that those patients who recovered with the gauze drain would have recovered without any drain at all. The gauze drain would dry up. The gauze drain in cavities where there was pus, and where there was a large opening was the only drain, but where there was no pus formation the only drain was the glass drain.

Dr. Walter C. G. Kirchner said that with reference to the case he had operated upon a few points would answer some of the questions put. There were nine perforations, most of which were in the jejunum. The nine perforations extended over about six feet of the bowel. A patient could tolerate a great resection when that resection was made in the lower part of the bowel. For that reason the first four perforations were sutured and the others resected. It was important to save as much of the jejunum as possible. At the time these patients were operated upon the intestines were full and the lymphatics were distended. As to perforations of the mesentery, when the vessels below the arch were injured the damage was not so likely to be great as when the injury was high up. He did not consider an injury to one of the branches high up as serious as an injury near the root. The matter of flushing was of great importance and it should always be carried out in resection cases. In this particular case after the large drainage tube was put in a large quantity of blood was removed, pieces of clothing and clots. A little water was dangerous. When flushing was done at all it should be thoroughly done. One of the speakers had inquired about those patients that could not speak for themselves. One of those patients he had followed to the

morgue, and the result of the examination showed that he had been shot through the lung, through the pericardium, the heart muscle, the diaphragm, the omentum and mesentery, the jejunum had been nearly severed, there were two perforations of the stomach and perforations of the spleen, liver and gall bladder. Of course, there were many cases that did not recover.

Dr. John Young Brown heartily agreed with Dr. Carson regarding the value of an exploratory incision. Many cases reached the surgeon too late. That was especially true of cancer of the uterus. The only absolute method of determining the condition was accomplished through a vaginal examination in the one case and an exploratory incision in the other. He had recently operated upon two cases that showed the necessity for an exploratory incision. In one case the patient had seen two good physicians of St. Louis, one of whom made a diagnosis of gastric ulcer, the other was diagnosed malignancy. When he operated Dr. Brown found a handful of gall stones in the gall bladder and three in the common duct. The other case diagnosed as malignancy was a tubercular peritonitis. It was a lamentable fact that the clinician was rarely seen in the operating room. The surgeon was beginning now to demonstrate that the exploratory incision in capable hands was without danger and enabled them to clear up a great deal in cases of this kind. There was no more perfect chapter in surgery than surgery of the stomach. Resection work had been made comparatively easy, and by tying off the blood supply at the four corners it could be accomplished very quickly and with no loss of blood. He did not agree with Dr. Carson that radical work should always be done in malignancy of the stomach. In many cases there were extensive adhesions and it was better to do a simple gastro-enterostomy for relief. Where malignancy was diagnosed early radical work should always be done.

Dr. Brown, in closing, replied first to Dr. Clopton's question as to what portion of the bowel had been removed, stating that the bulk of it was the small bowel and ileum. As to the remarks of Dr. Myer, his own ideas in regard to the physiology of digestion had been shocked very materially by the three cases that he had seen. In two cases their diges-

tion was apparently as good if not better than before. The negro had gained in weight and the white man was, if anything, a little heavier than when he entered the hospital. Another thing he had discussed with Dr. Myer was the patient whom he had operated upon, removing all the large bowel except the sigmoid. Instead of having diarrhoea, as would have been expected, the woman was constipated, and had to take medicine continually. Dr. Brown endorsed everything Captain Williams had said. The course pursued by military surgeons was a wise one. The point he had wished to make was that the teaching to leave these cases alone was a bad one in civil practice. Such teaching would tend to lead surgeons to include those cases where there was opportunity to do good surgery. He would question the diagnosis of perforation when the patient recovered. He had done any number of exploratory operations and never had a death from the procedure. Replying to Dr. Kieffer relative to the after-treatment, he thought the question of drainage would be under discussion in the year 2000. One man drained with gauze and got good results, another used a glass tube and had equally as good results, while a third would use rubber. It made no material difference. He had good results with the glass drain. The danger of infection with that drain he thought a point not well taken, if the intestine was pulled up and the tube placed in vesico-rectal pouch with no bowel under it, the

dressings put on and the rubber dam properly used for protection. Of course, it was necessary to be scrupulously careful in draining tube with syringe, and the technic used should be that used in handling all other clean wounds. There was another form of drainage, and that was the drainage done by the rectal and the stomach tube. He knew of no method so important as the washing out of the stomach and the use of the rectal tube. Another point was the use of narcotics after a laparotomy. Though they got the worst sort of cases at the City Hospital, it was exceedingly rare that a hypodermic of morphine was given. No matter what abdominal operation was done the patient would have a stormy time during the first twenty-four hours. The wards there were all dormitory wards, and if the patient was raising a good deal of disturbance a hypodermic of morphine was given to protect the other patients. As to drainage, they were inclined to be practical rather than theoretical. A few years ago certain surgeons had advocated standing patients on their heads and draining through the lymphatics, now they raised them up and drained through the pelvis. He had once asked a distinguished surgeon what his method of after-treatment was in abdominal surgery and the reply was: "If I find my patient doing well after twelve hours I am so glad of it I leave them alone." This advice he considered good, as much harm can be done by unnecessary medication.

Meeting of February 11, 1905.

SPECIMEN OF CANCER OF THE STOMACH.

BY DR. N. B. CARSON.

This case I saw some weeks ago, and advised operation. At that time I could make out a tumor about the size of a hen's egg in the epigastric region and freely movable. There was no question as to the character of the tumor. We advised an operation purely exploratory, the subsequent steps to depend upon what was found. The patient did not accept until about two weeks ago, when she came to the hospital and said she desired an operation. She said she understood fully the dangers and possibility. We told her that the growth had decidedly increased, and that

it might be necessary to merely close up the wound without further operative procedure.

The patient was admitted to the hospital January 24th. She was thirty-nine years of age, white, born in St. Louis. The diagnosis was carcinoma of the stomach. The patient died the night following operation. Father and mother dead; cause of death unknown. One sister and a half-sister died of tuberculosis. The patient had been delicate before her marriage, but after that had been in good health. She had been married fifteen years; had never been pregnant.

This specimen shows two or three interesting features. One in particular I will refer to later, and I would like to have those who discuss the matter express their opinion as to the condition we see here. I have always believed that whenever we have decided symptoms of malignancy, symptoms sufficient to lead us to conclude that we have a malignant condition, an exploratory operation is justifiable, whether we can make out the presence of a tumor or not. A great many believe that where a tumor is present it is too late, but I beg to disagree with them. I have known of a number of cases in which the patient was made comfortable by an operation, and remained so for a long time. The case I reported to the society recently is an example. We found a large involvement of the stomach, requiring the removal of four-fifths of the stomach and a portion of the transverse colon. We did not recognize that the transverse colon was involved, or we would not have undertaken to remove the stomach, but when we had gone so far there was nothing to do but complete the operation. I heard from that patient a little less than two weeks ago, and he was then well and enjoying life. When I operated he was in every way a great sufferer. Within thirty-six hours he was perfectly comfortable, and had had not an uncomfortable feeling from that time until he left the hospital.

In the present case we found a tumor freely movable involving the lesser curvature of the stomach. It was so movable that I thought I could take it away. Later I found it impossible, and the condition was such that further operative procedure had to be desisted from and the abdomen closed. I do not believe a gastroenterostomy would have changed the result.

You may ask why I undertook this operation, where so much was involved. I believe that where a cancerous growth can be removed it should be. I have seen beneficial results follow cases that appeared most hopeless. We should give the patient the benefit of the doubt. You will find that some surgeons agree with me, that when we come upon a cancerous growth in the stomach it should be removed. Some of them argue that the disease is never so extensive but that it can be taken away. I do not agree with that, as there are cases where it is not possible, as

in this case, where we desisted from operation.

That brings up another point: whether small incisions will enable us to decide positively. I believe we must make a large and free incision. We do no harm, and the patient can be gotten up very shortly afterward and suffer no harm from an exploratory operation.

Another point is the idea that many of these malignant growths are grafted upon old ulcers. I think that the disease often presents the appearance of an old ulcer. I questioned this patient very closely to find out whether she had had any previous symptoms of gastric ulcer, but could find none, yet when we opened the stomach I found a mass that might have led us to think that such a condition existed. I really believe that many cases where the disease is supposed to have its origin in gastric ulcer are mistaken ones. I believe it is stated that from 2 to 5 per cent. of all cases of stomach trouble are gastric ulcers. In my experience I do not believe I have seen more than fifteen cases of gastric ulcer where the diagnosis was positively made. I know the number of cases I have seen is a great deal less than 1 per cent. I believe, too, that this idea leads us to many unnecessary operations. I heard today of a surgeon who said that gastric ulcers were of two classes, surgical and medical. Those of the first class were plainly demonstrable, while those of the second class often required a long search to find the lesion. In one case, wherein there had been a hemorrhage, they finally found a small bleeding point from which blood was escaping, and they called this an ulcer. I think that little bones, etc., often get into the stomach, causing such a condition. I have in my possession the breast bone of a quail, very sharp at the ends, that passed through the alimentary canal to the sigmoid flexure at the brim of the pelvis, and there became lodged, the inflammation resulting forming a stricture. While operating on this case I had my hands gloved, and in examining the bowel my glove caught on the projecting piece. I removed it, finding it had ulcerated completely through the bowel. This shows us what damage may be done to the alimentary canal by the passage of sharp articles. I have no doubt many hemorrhages are due to the abrasions caused

by such foreign bodies, and if let alone they would heal, and the operation would not be necessary to heal these so-called medical ulcers.

DISCUSSION.

Dr. W. E. Fischel said that Dr. Carson had made the very heroic statement that to him it seemed advisable to remove a malignant growth no matter where located, under all circumstances; in other words, that it made no difference whether the tumor involved only a small area of the stomach or perhaps the entire stomach and a part of the bowel, it was the duty of the surgeon to remove the growth. If that position of the doctor's was tenable it would lessen very materially the work of the internist. The work of the surgeon as well as that of the physician should not be depreciated. It was important to the physician particularly in malignant conditions of the stomach, to recognize that condition as early as possible. That that was sometimes impossible was demonstrated by Dr. Carson's statement that this patient, just seven weeks before she entered the hospital was perfectly well. There was absolutely no reason to suspect there was any stomach trouble, making an early diagnosis impossible. But a tumor that had invaded as much territory as this one, must have lasted more than a few weeks. This brought out the point that an individual might have a malignant trouble for an indifferent time and be comfortable, and that brought up the question whether it was always justifiable to remove every malignant growth. Every one could remember cases where malignancy was diagnosed and yet the patient lived in comparative comfort beyond the allotted time of two years. As to the early recognition of cancer, it was often absolutely impossible to recognize a malignant trouble early. He did not, however, believe it as impossible as it was often said to be. The fault was often with the physician and the reason the physicians were at fault in determining early the presence of malignant trouble was that they were too routine in their work. They bore in mind certain facts and when those facts were exhausted they grew careless and looked no further. No one symptom could be regarded as pathognomonic of serious trouble, let alone malignant trouble. The result of the analysis of the stomach contents was not always absolutely

symptomatic, the impaired mobility and impaired absorptive power were not pathognomonic of malignancy. One might have no hydrochloric acid or one might have lactic acid and have no malignancy, or one might have a normal hydrochloric acid and no lactic acid and yet have malignancy. There might be an immensely dilated stomach and yet no malignancy. There might be a leucocytosis so marked that one could not help suspecting malignancy, yet there might be no such condition. The condition could not be diagnosed by ten symptoms. Those symptoms were after all only contributory. There must be taken into account the history of the case and the appearance of the patient. One individual would sometimes see in the aspect of his patient what a colleague equally expert would not see. The appearance of the patient, together with the history and what could be discovered by careful clinical and microscopical examination, enabled the physician to make a diagnosis. Dr. Fischel said he should like to argue with Dr. Carson on the possibility of gastric ulcer being favorable ground for malignant degeneration. Dr. Carson had based his belief upon the fact that he had seen but few gastric ulcers. The speaker had seen a great many cases in his experience and in this case he thought it entirely possible that the point that seemed to indicate the original hardening was possibly a gastric ulcer. Of course malignant trouble usually involved first the mucosa and as it progressed took in all the layers of the stomach and it seemed entirely possible that in this case the cancerous growth had had its origin in an ulcer.

Dr. Carson said that he had not intended to imply that because the growth was so extensive it did not have its origin in an ulcer. He had simply meant that the appearance of the mass was such that he had thought ulcer could be excluded.

Dr. Fischel added that even in view of such a result as that in the case reported by Dr. Carson some time ago and which had reflected such great credit on the surgery of this western country, he could not help feeling that one sometimes came in contact with malignant disease of the stomach or bowel where the tumor could be felt, where emaciation existed and where a period of latency seemed to have arrived, the patient suddenly began

to gain strength and flesh and went on a long time in comparative comfort. He had a patient of that kind under observation at the present time. A year ago that patient looked as if she would die very shortly, yet within the last year she had gained in weight and was comfortable and happy. In malignant trouble there were often periods of rest. He believed that the statistics given by the surgeons as to the number of cases that got well and the number that succumbed to metastases were necessarily inaccurate.

Dr. Jessie S. Myer, referring to the question of the development of carcinoma on the basis of gastric ulcer, said this was not the sort of case in which he would expect to find the carcinoma developed on an ulcer. A patient who had never presented any symptoms could hardly be expected to have had gastric ulcer. There was no other way of knowing that the carcinoma did or did not develop on the basis of an ulcer. The only way one could decide that question was from the history of the case pure and simple. Three or four years ago Dr. Carson had operated upon a case in which there was a typical carcinomatous ulcer, yet prior to the occurrence of the condition necessitating operation, the patient had presented no symptoms. When a patient gave a history characteristic of gastric ulcer and which had existed, perhaps, a number of years before the development of carcinoma, it was but reasonable to conclude that the carcinoma had resulted from the ulcer. By way of illustration he referred to the case of a physician who had died here several years ago. Dr. Myer had seen the patient some two years before his death and at that time he presented symptoms typical of gastric ulcer. Two years later a physician called him up and asked him what he had found. Dr. Myer had replied that there was a marked superacidity. The physician then said that the patient had no tumor, but that there was a total and persistent absence of hydrochloric acid. That man had evidently had an ulcer of the stomach upon which had developed the carcinoma, but no examination would have revealed that. In the patient operated upon by Dr. Carson there was a carcinomatous ulcer about the size of a dollar, yet but five or six weeks before there were no symptoms. When gastric disturbance arose suddenly in a patient over

fifty, with rapid loss of weight, total and persistent absence of hydrochloric acid and presence of lactic acid, those were the cases where tumor should not be waited for. Whenever there was reason to suspect the possibility of a carcinoma of the stomach, then the case became a surgical one. The physician should not wait until the tumor became as large as one's head, yet even those cases might be operable. He recalled one case in which there was a tumor as large as the fist, the patient had lost weight, there was present lactic acid and an absence of hydrochloric acid and all the typical symptoms of carcinoma. He advised operation and the patient decided to go to New York and have it done. Some months later that patient had walked into the office so changed in appearance that the doctor failed to recognize him. He was fat and healthy and stated that the doctor in New York had cut his stomach out and put in a new one. That man would doubtless have at least two or three years of comparative comfort. It was possible to go to the opposite extreme and recommend surgical interference too early. Hydrochloric acid might disappear for a time and carcinoma be suspected, yet carcinoma might not exist. As an example he mentioned the case of a gentleman he had examined two years ago and to whom he had recommended an exploratory operation. That patient had regained the sixty pounds he had lost and was in as good health as ever, yet two years ago there was a total absence of hydrochloric acid and presence of lactic acid, the patient was over fifty years of age and there had been rapid loss of weight, yet that patient was in perfect health to-day. Therefore, they should try to strike a happy medium and avoid recommending surgical interference too early or too late.

Dr. F. Fahlen said that one case Dr. Smith had at Mullanphy Hospital might show the correctness of Dr. Fischel's statement, that taking any one symptom as pathognomonic would be a mistake. In that case the greater curvature was three inches below the level of the umbilicus, there was vomiting, peristalsis was easily seen through the stomach wall, tumor was present, yet there was present hydrochloric acid and no lactic acid. This was shown by four or five examinations, yet there was no question about its being a carcinoma of the stomach.

Dr. John Young Brown heartily agreed with Dr. Carson regarding the value of an exploratory incision. Many cases reached the surgeon too late. That was especially true of cancer of the uterus. The only absolute method of determining the condition was by an exploratory incision. He had recently operated upon two cases that showed the necessity for an exploratory incision. In one case the patient had seen two good physicians of St. Louis, one of whom made a diagnosis of gastric ulcer, the other diagnosed malignancy. When he operated, Dr. Brown found a handful of gall stones in the gall bladder and three in the common duct. Another case diagnosed as malignancy was a tubercular peritonitis. It was a lamentable fact that the clinician was rarely seen in the operating room. The surgeon was beginning now to demonstrate that the exploratory incision in capable hands was without danger and enabled them to clear up a great deal in cases of this kind. There was no more perfect chapter in surgery than surgery of the stomach. Resection work had been made comparatively easy, and by tying off the blood supply it could be accomplished very quickly. He did not agree with Dr. Carson, that radical work should always be done. In many cases there were extensive adhesions, and it was better to do a simple gastro-enterostomy for relief. Where malignancy was diagnosed early, radical work should be done.

Dr. C. A. Snodgrass said that probably no field had taxed the physician more than the upper abdomen, or brought more practical results to the surgeon. He had known that surgeons would say something of interest, and also the clinicians. He had been glad to hear the remarks with reference to the findings in stomach analyses. For the last year he had been making the analyses at the City Hospital, and he had with him a record of fifteen cases, eight of them malignant, and had been followed to the surgeon, four were gastritis and three miscellaneous cases. In the future he intended to follow up this work more in the research line than he had done in the past. He had made a quantitative analysis in all cases for hydrochloric and lactic acid, and in most cases he had made a microscopic examination. In making the test for lactic acid he used two test tubes, and put in 7 c. c. of water, added 3 drams of perchloride of iron.

One of these tubes was used as a control. Into the other was placed a small platinum loop of lactic acid as a guide. Then the stomach contents was added drop by drop. In that way a relatively accurate result was secured. These cases were all followed to autopsy:

Case 1.—Total acidity, 5; free hydrochloric acid, absent; lactic acid, only a trace.

Case 2.—Total acidity, 15; free hydrochloric acid, none; lactic acid, only a trace.

Case 3.—Total acidity, 40; free hydrochloric acid, 25; lactic acid, none.

Case 4.—Total acidity, 80; free hydrochloric acid, 60; lactic acid, none.

These cases were adenocarcinoma, no necer conditions noticeable:

Case 5.—Total acidity, 57.5; free hydrochloric acid, 10; lactic acid, none.

Case 6.—Two analyses. Total acidity, 12, 25; free hydrochloric acid, none, none; lactic acid, only a trace, none.

Case 7.—Total acidity, 10; free hydrochloric acid, none; lactic acid, only a trace.

Case 8.—Total acidity, 28; free hydrochloric acid, none; lactic acid, only a trace.

From those tests he had made the following observations:

Blood microscopically found in only 25 per cent. of the cases. At least 50 per cent. contained large quantities of mucus. Seventy-five per cent. showed acidity below the normal. Hydrochloric acid was below the normal. No case showed excess of lactic acid. Microscopically blood was found in but two of the cases. As a result of these observations his conclusions were that the total acidity and free hydrochloric acid were generally below the normal, not always; that lactic acid was not usually found in large quantity; that blood was not found microscopically or macroscopically as a rule. In six cases of chronic gastritis the total acidity was not increased, hydrochloric acid was always diminished or absent, and in most cases after the Ewald breakfast he found a high lactic acidity. There was a low acidity, both total and free in gastric ulcer. His general conclusions were that the history and stomach analysis combined was the most sure method of diagnosis of acute gastritis; that carcinoma might exist and nothing in the stomach be found that was pathognomonic; that the finding of a tumor mass in the upper abdomen did not warrant a

diagnosis of cancer of any kind in that region, though the stomach analysis might bear out that diagnosis. That was illustrated by one of the cases Dr. Brown had mentioned. It had been decided that the condition was probably a malignant involvement of the colon, but when the abdomen was opened the tumor was found to be the head of a normal pancreas. There was present a tubercular peritonitis. His final conclusion was that there was no other way to absolutely diagnose chronic gastritis and cancer of the stomach than by an exploratory laparotomy.

Dr. Charles Shattinger thought that this question of the chemical findings in diagnosis should have been settled long ago. If the cancerous infection invaded the glands producing hydrochloric acid sufficiently to put them out of function, then there would be no hydrochloric acid. If it did not do enough damage to put them out of function, then there would be hydrochloric acid. He thought that was a matter that had been settled long ago and that they all knew how to make a differential diagnosis between cancer of the stomach and chronic gastritis. He thought that none of them would be prepared to go on the operating table to permit a diagnosis of chronic gastric catarrh.

Dr. Fischel said that he had a feeling that Dr. Shattinger was attacking those who had discussed the subject. It gave him untold pleasure to know that their august body solved problems that had never before been solved and it also gave him very great pleasure to hear matters of general interest discussed even though some of the facts brought out were not entirely new.

Dr. N. B. Carson, in closing, was glad that what he had said had brought out so interesting a discussion. In reply to Dr. Fischel he said that he had seen a number of cases of cancer of the stomach where the symptoms were latent, where the disease had been made out and the patient had passed sometime in comfort, yet that did not alter his opinion that cancer of the stomach should be operated upon as soon as made out, for no one could tell what cases were going to become latent.

The majority of those cases produced great suffering and toward the latter stages the patients would much prefer to die than to exist as they were existing. If they removed the cancer (and it was true that the mortality was being greatly reduced in such operations), the patients got very decided comfort and if there was a metastasis and the patients died with less suffering than if the operation had not been done. He had a case that he expected to operate upon the next week in which all the evidence led him to think there was a malignant trouble engrafted upon gastric ulcer. For several years the patient had been suffering from gastric disturbance and there was occasionally coffee ground vomit. Since July the trouble had increased and the quantity of blood had increased, there was emaciation and all the symptoms of cancer. The tumor was not large and it was freely movable and he had advised removing it if possible, and if not, the making of a gastroenterostomy, for the power of the stomach had been lost and the patient was suffering a great deal of pain and nausea that made life a burden. In spite of the fact that such patients might have a great deal of comfort, he believed that whenever it was possible to remove malignant disease it should be done. Not only great relief came in cancer of the stomach by such a procedure, but he had seen a number of cases of cancer in different parts of the body where he had advised that operation should not be done, but had operated at the urgent request of the patients and these patients had lived years and years in comfort. If even a few patients recovered and lived in comfort he believed they should do the operation when the patients wanted it done. They should not deny the patient that privilege. When all efforts had been made to make a positive diagnosis without success, then an exploratory operation was justified to enable them to operate if necessary before it was too late. If internists would more frequently visit the operating room it would be for the benefit of all and there should be the most hearty co-operation between the surgeon and the internist.

BOOK REVIEWS.

Manual of Operative Surgery. By John Fairbairn Binnie. A. M., C. M. (Aberdeen), Professor of Surgery Kansas City Medical College, Kansas City, Mo., Fellow of the American Surgical Association, Membre de la Societe Internationale de Chirurgie. Six hundred and forty-one pages, with 559 illustrations. Price, \$3.00. P. Blakiston's Son & Co. 1905.

In this excellent little work amputations and ligations and such portion of genito-urinary and rectal surgery as are fully treated in the common text book have been passed over in silence. The book is eminently practical, and covers in a satisfactory manner the field it occupies.

Transactions of the South Dakota State Medical Association for the Years 1903-04. News Printing Company, Aberdeen, S. D.

This volume, bound in paper, 128 pages, contains the transactions of the twenty-second annual meeting, held at Mitchells, S. D., 1903, and the transactions of the twenty-third annual meeting, held at Rudfield, S. D., 1904.

Transactions of the New Hampshire Medical Society of the One Hundred and Thirteenth Anniversary, held at Concord, May 19 and 20, 1904.

This octavo volume of over 300 pages, well bound, in cloth, and containing many remarkably good articles, will become a permanent part of medical history. The Rumford Press,

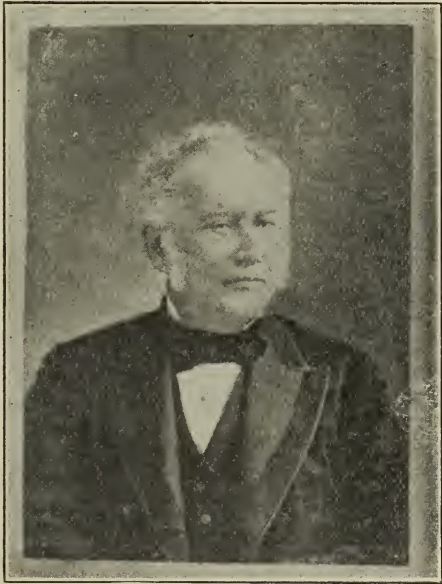
of Concord, is to be congratulated on the excellent presswork and substantial binding.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles by Leading Members of the Medical Profession throughout the World. Edited by A. J. O. Kelly, A. M., M. D., Philadelphia. Octavo. Three hundred pages per volume. Illustrated in colors and black and white. Cloth, \$2.00 per volume; \$8.00 per year. Half-leather, \$2.25 per volume; \$9.00 per year. J. P. Lippincott Co.

No practicing physician or surgeon who would be familiar with medical progress should fail to have his name on the permanent list of subscribers. A careful review of Volume IV, Series Fourteen, strengthens our belief that the International Clinics constitutes the most practical, economical and altogether valuable illustrated work of its kind ever offered the profession. Among the contributors to this volume are George Hayem, Adolpha Javal and F. Lejars on Treatment; F. Parker Weber, Solomon Solis Cohen, Sir Dyce Duckworth, H. Senator and Alexander Crombie on Medicine; E. H. Bradford, Wisner R. Townsend, John Lincoln Porter, W. Arbuthnot Lane, Anthony A. Bowlby and A. Ernest Gallant on Surgery; F. A. L. Lockhart on Gynecology; Daniel R. Brower on Neurology, and Alfred Scott Warthin and Charles F. Craig on Pathology.

BIOGRAPHICAL SKETCHES.

Surgeon's Hall.—Samuel D. Gross, than whom there has been none greater in surgery and medicine, was born near Easton, Pennsylvania, July 8, 1805. His childhood was spent on the farm of his father, Philip Gross. Before the age of six years he conceived the idea of becoming a physician. This idea dominated him through the struggles and trials of his life. He early determined so to study his profession as to be able to meet every emergency, however dif-



ficult or unexpected, and consequently never to send any patient away unless he was in a hopeless condition. At seventeen he entered the office of a country practitioner. At nineteen he was working under the tuition of Dr. Joseph K. Swift, of Easton. He later matriculated at Jefferson College, and became a private student of Dr. George McClelland, then professor of surgery of that institution. In 1828 he received his medical degree, and

opened an office in Philadelphia and set himself diligently to translations and original work. Inside of a year he had translated Bayle and Hoolar's General Anatomy, Hildenbrand on Typhoid Fever, Hatin's Manual of Obstetrics and Tavernier's Operative Surgery. In 1830 he published his "Treatise on Anatomy, Physiology and Diseases of the Bones and Joints." Practice came slowly, and inside of two years he returned to Easton. There he took the brave young wife who had consented to share his privations and his struggles, and who, during their long and singularly happy wedded life, rejoiced with him in the successes which from time to time crowned his efforts. In 1833 he went to Cincinnati to accept the position of demonstrator of anatomy in the Medical College of Ohio. In 1835 he accepted the chair of pathological anatomy in the medical department of Cincinnati College, and in 1840 the chair of surgery at Louisville. In 1856 he became professor of surgery at Jefferson Medical College. Early in the winter of 1883-4 his health began to fail markedly, and his family, in alarm, induced him in March to go to Atlantic City to recuperate. He returned to Philadelphia in a few days completely worn out, and steadily grew worse until on the 6th of May he died. The American Medical Association was then in session at Washington, D. C., and the following were appointed a committee to "take such action as it might deem proper:" Drs. Austin G. Flint, T. G. Richardson, L. A. Sayre, John H. Packard, F. H. Hamilton, Moses Gunn, W. T. Briggs and I. M. Hays.

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Madison.....	G. W. Greenwood.....	Fredericktown.....	C. U. Davis.....	Fredericktown.
Maries.....	O. C. Fritts.....	Lois.....	O. N. Schudde.....	Vienna.
Marion.....	R. H. Goodier.....	Hannibal.....	F. Janet Reid.....	Hannibal.
Mercer.....	H. P. Chesmore.....	Princeton.....	C. R. Buren.....	Princeton.
Miller.....	S. P. Hickman.....	Ulman.....	G. D. Walker.....	Eldon.
Mississippi.....	A. J. Martin.....	East Prairie.....	W. P. Howle.....	Charleston.
Moniteau.....	J. B. Stewart.....	Clarksburg.....	W. R. Patterson.....	Tipton.
Monroe.....	G. B. Dysart.....	Paris.....	W. B. A. McNutt.....	Monroe City.
Morgan.....	W. L. Hatler.....	Barnett.....	J. T. Beale.....	Versailles.
Nodaway.....	J. A. Larrabee.....	Barnard.....	F. R. Anthony.....	Maryville.
Newton.....	J. W. Lamson.....	Neosho.....	Horace Bowers.....	Neosho.
Pemiscott.....	D. B. Crowe.....	Caruthersville.....	J. G. Luten.....	Caruthersville.
Perry.....	T. M. Hudson.....	Perryville.....	F. M. Vellells.....	Perryville.
Pettis.....	W. C. Overstreet.....	Sedalia.....	W. S. Shirk.....	Sedalia.
Phelps.....	W. H. Breuer.....	St. James.....	S. L. Baysinger.....	Rolla.
Platte.....	R. P. Davis.....	Woodruff.....	G. C. Coffey.....	Platte City.
Putnam.....	C. H. Carryer.....	Hartford, Mo.....	T. A. Townsend.....	Unionville.
Ralls.....	O. B. Hicklin.....	New London.....	T. J. Downing.....	New London.
Randolph.....	D. A. Barnhart.....	Huntsville.....	S. C. Adams.....	Huntsville.
Ray.....	Chas. B. Shotwell.....	Richmond.....	L. D. Greene.....	Richmond.
Reynolds.....	J. M. Lowery.....	Centerville.....	T. W. Chilton.....	Corridon.
Saline.....	D. C. Gore.....	Marshall.....	D. F. Bell.....	Marshall.
St. Clair.....	W. Cline.....	Appleton City.....	E. D. Miles.....	Osceola.
St. Genevieve.....	M. Andre.....	St. Genevieve.....	F. E. Hinch.....	St. Genevieve.
St. Louis.....	F. L. Henderson.....	Century Bldg.....	T. A. Hopkins.....	Century Bldg.
St. Louis Co.....	H. G. Wyer.....	Kirkwood.....	H. T. Randle.....	Clayton.
Schuyler.....	J. T. Jones.....	Queen City.....	H. E. Gerwig.....	Downing.
Scotland.....	W. E. Alexander.....	Memphis.....	O. F. Pile.....	Memphis.
Shelby.....	H. C. Vaughn.....	Shelbina.....	A. M. Wood.....	Lentner.
Stoddard.....	D. R. Corbin.....	Bloomfield.....	Jno. Ashley.....	Bloomfield.
Sullivan.....	J. C. Kessenger.....	Milan.....	J. S. Montgomery.....	Milan.
Washington.....	J. A. Eaton.....	Belgrade.....	W. S. Smith.....	Belgrade.
Wayne.....	L. M. Pettit.....	Greenville.....	I. N. Barnett.....	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

COUNTY.	DATE OF MEETING.
Adair.....	Monthly.
Atchison.....	Quarterly. January, April, July, October.
Audrian.....	Monthly. First Monday.
Bates.....	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone.....	Monthly. First Monday.
Buchanan.....	Semi-Monthly. First and Third Friday.
Butler.....	Monthly.
Caldwell.....	Quarterly. July, October, January, April.
Callaway.....	Monthly. Second Thursday.
Camden.....	Quarterly. January, April, July, October.
Cape Girardeau.....	Monthly.
Carroll.....	Monthly. Second Tuesday.
Cass.....	Quarterly. First Thursday of March, June, Sept., Dec.
Chariton.....	Monthly. Last Thursday.
Clark.....	1st Mondays Feb., Apr., June, Aug., Oct., Dec.
Clay.....	Monthly. Last Monday.
Cole.....	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper.....	Monthly. First Tuesday.
Crawford.....	Quarterly. First Tuesday. Apr., July, Oct., Jan.
Current River.....	Quarterly. August, November, February, May.
Daviess.....	Monthly.
Dunklin.....	Monthly.
Grundy.....	Quarterly. July, October, January, April.
Henry.....	Monthly. Second Tuesday.
Holt.....	Quarterly. January, April, July, October.
Howard.....	Monthly. Third Tuesday.
Howell.....	First Thursday of Dec., Feb., Apr., June, Aug., Oct.
Iron.....	Monthly. First Saturday.
Jackson.....	Semi-Monthly. Second and Fourth Thursdays.
Jasper.....	Semi-Monthly. First and Third Mondays.
Johnson.....	Quarterly. June, September, December, March.
John T. Hodgen.....	Quarterly. October, January, April, July.
Laclede.....	Semi-Annually. First Mondays May and November.
Linn.....	Quarterly. October, January, April, July.
Livingston.....	Monthly. Second Thursday.
McDonald.....	Monthly. First Wednesday.
McDowell District.....	Semi-Annually. Fourth Thursday in Oct. and Apr.
Macon.....	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison.....	Semi-Monthly. First and Third Monday.
Maries.....	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion.....	Monthly. First Friday.
Mercer.....	Monthly. Second Thursday.
Miller.....	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi.....	Monthly. First Monday.
Moniteau.....	Quarterly. March, June, September, December.
Monroe.....	Quarterly. First Tuesday of April, July, October, Jan.
Morgan.....	Quarterly. First Wed. of March, June, Sept., Dec.
Newton.....	Monthly. Second Tuesday.
Nodaway.....	Monthly. Second Tuesday.
Pemiscott.....	Monthly.
Perry.....	Monthly.
Pettis.....	Monthly.
Phelps.....	Quarterly. March, June, September, December.
Platte.....	Monthly. First Wednesday.
Putnam.....	Monthly. First Wednesday.
Ralls.....	Quarterly. January, April, July and October.
Randolph.....	Monthly.
Ray.....	Monthly. Third Wednesday.
Reynolds.....	Quarterly. January, March, June, October.
Saline.....	Monthly. Second Tuesday.
St. Clair.....	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Genevieve.....	Monthly.
St. Louis.....	Weekly. Saturdays.
St. Louis County.....	Monthly. Second Wednesday.
Schuyler.....	Semi-Monthly. July and December.
Scotland.....	Monthly. Second Tuesday.
Shelby.....	Quarterly. June, September, December, March.
Stoddard.....	First Wednesday in March, June, Sept. and Dec.
Sullivan.....	Monthly.
Washington.....	Monthly. First Saturday.
Wayne.....	Monthly.

AMERICAN MEDICAL ASSOCIATION

Next Annual Meeting at Portland, Oregon, July 11th to 14th, 1905.

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President: JOHN H. MUSSER, Philadelphia, Pa.

First Vice-President: EDWARD JACKSON, Denver, Colo.

Second Vice-President: JAMES HALL BELL, San Antonio, Texas.

Third Vice-President: F. C. SHATTUCK, Boston, Mass.

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Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Excelsior Springs, May 16, 17 and 18, 1905.

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COUNCILLOR DISTRICTS AND LIST OF UNORGANIZED COUNTIES.

FIRST DISTRICT.—F. B. HILLER; Knox, Lewis.

SECOND DISTRICT.—J. B. BRUMMALL; solidly organized.

THIRD DISTRICT.—E. H. MILLER; Clinton, DeKalb, Gentry, Harrison, Worth.

FOURTH DISTRICT.—C. H. WALLACE; Andrew.

FIFTH DISTRICT.—L. W. DALLAS; solidly organized.

SIXTH DISTRICT.—WOODSON MOSS; Montgomery, Warren and Pike.

SEVENTH DISTRICT.—W. B. DORSETT; St. Charles, Lincoln.

EIGHTH DISTRICT.—F. J. LUTZ; Franklin, Gasconade.

NINTH DISTRICT.—B. M. HYPES; solidly organized.

TENTH DISTRICT.—J. J. NORWINE; Scott, New Madrid, Bollinger, Center, Ripley,
Jefferson, Francois.

ELEVENTH DISTRICT.—W. S. ALLEE; Osage.

TWELFTH DISTRICT.—R. D. HAIRE; Benton, Lafayette.

THIRTEENTH DISTRICT.—M. P. OVERHOLSER; solidly organized.

FOURTEENTH DISTRICT.—A. R. SNYDER; Berry, Lawrence, Dade, Barton, Cedar,
Vernon.

FIFTEENTH DISTRICT.—Hickory, Stone, Taney, Greene, Christian, Dallas, Polk.

SIXTEENTH DISTRICT.—R. L. JOHNSON; Pulaski, Webster, Ozark, Dent, Texas, Wright,
Douglas, Oregon.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

VOLUME I.

APRIL.

NUMBER 10

ORIGINAL ARTICLES.

INFLUENZA COMPLICATING THE PUERPERIUM.*

BY WILLIS HALL, M. D., St. Louis.

This subject from my view point is one of extreme interest in that it occurs rarely, as evidenced by the scarcity of literature in the textbooks and the journals.

And that obstetricians almost as a body have held for many years that extraneous influences, such as milk secretion, typhoid, influenza and malaria, especially, have not much weight in the causation of temperatures during the puerperium. In the case which prompted this writing, malaria and typhoid were excluded by blood examinations, there was no local or general sepsis, there was no offensive or suppressed lochia, no peritonitis, no tenderness of the uterus or appendages, so the diagnosis of influenza was made and treatment followed along those lines. The delivery occurred during a more or less widespread epidemic of influenza in December, 1903, when all forms of disease were influenced by its prevalence. The history of the case is as follows: Mrs. L., æt. thirty-two years, American, in good condition

throughout gestation, ii para. First labor a difficult forceps delivery, recovery good. Second labor normal as to mother, child stillborn, again made a good recovery.

December 17, 1903, 1 P. M., was delivered without difficulty of seven-pound girl L. O. A. position. First stage normal, about six hours in duration. Second stage complicated by the cord being around the child's neck and also passing around one arm close up in the axilla, which resulted in a still-born baby. Could hear no heart sounds and of course no respiratory effort. This stage one hour. The tension on the cord had perhaps interfered with the fetal circulation, for a day or two before labor set in, as the mother had felt no movement of the child in thirty-six hours. Third stage, twenty minutes; normal.

Placenta and membranes came away entire, no laceration of the perineum. Uterus firmly contracted and remained so.

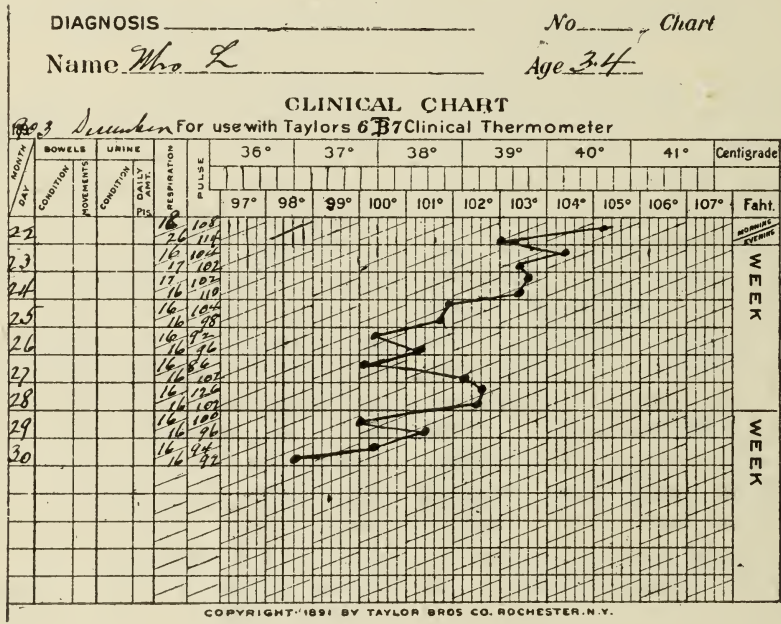
Convalescence progressed nicely till the third day (20th) when she had a long crying spell over the loss of the child, and at this time there was a

* Read before the St. Louis Obstetrical and Gynecological Society, March 9, 1905.

copious secretion of milk in the breasts, accompanied by pain in them, fullness and heat and a temperature of 101.6° F., pulse 74. By means of massage, moist heat, the breast pump and pressure, the breasts were relieved and the temperature returned to normal on the 22d. I am inclined to attribute the temperature to the emotional factor rather than the breasts. On the evening of this day she complained of general aching in

suasion to put the patient under an anesthetic to allow me to make a digital exploration of the uterus, finding no placenta or membrane. I then introduced a very smooth-bladed pair of placental forceps, but got no membrane with them. This high temperature continued with some variation till the 25th (8th day) then gradually subsided and on the 30th reached normal.

See temperature chart.



the arms, legs, back and head, there were no catarrhal or respiratory symptoms. (She had nursed her child through an attack of influenza just prior to labor.) About midnight had a slight rigor, followed by a temperature at 8 A. M. of 105° F., pulse 108, respiration 18. On the 23d I called Dr. L. E. Newman in consultation, he concurred in the diagnosis of influenza and agreed after some per-

Aside from a retarded involution of the uterus, which some writers find in influenza, there had never been any pain or tenderness over the lower abdomen, in fact no symptoms of sepsis. The uterus, though not extremely large, had remained flaccid since the influenza invasion. For this condition she was given fld. ext. ergot in ½ drachm doses and strychnia sulph. in 1-40 gr. doses, both

every three hours for several days.

December 24, 1903, blood examinations by Dr. Gradwohl were negative as to typhoid and malaria, there was some leucocytosis, but the exact figures I have not at hand.

A few days later there was another blood examination, which was also negative, and leucocytosis diminished. With a family history of tuberculosis, we made careful examination of lungs, abdomen and all superficial glands with negative result.

The two points of uncertainty and dissatisfaction in the case were due to an incomplete bacteriological examination, that is, there was no bronchial secretion to examine for the Pfeiffer bacillus and the lochial discharge was not examined.

There have been many cases of influenza during pregnancy. Such a case I attended during the past week. A young woman, perhaps twenty-eight years old, a primipara, in the sixth month of gestation, complained of general aching, coryza, fever, 99° to 101.3 F. Some cough from the trachea, the lungs being normal. The attack continued four days and subsided without any interference with pregnancy.

Heintze, in *Centralblatt fuer Gynaecologie*, 1896, page 1311, emphasizes the fact that parturition is easy and rapid in influenza, and that in the puerperium subinvolution is marked. The best series of cases is reported by G. Moeller, "Bericht ueber die Influenzaepidemie im Februar, 1900, in der Geburtshilflichen Klinik in Griefswald," *Deutsche Medicinische Wochenschrift*, 1900, p. 467. With your indulgence I will give a brief

synopsis of the article. He reports eleven healthy pregnant women were suddenly taken sick, most of them with chills, headache, fever and nausea. Temperature ranged from 100.4° to 103.2° Bacteriological examination revealed numerous small bacilli in sputum; cultures made with blood agar revealed the same bacilli; diagnosis influenza bacilli. Influenza was epidemic in the city of Griefswald during the period covered by this report. In the following eight days, ten more pregnant women were taken down. Most of these complained of headache, multiparæ; claimed to have labor pains; such were noted on palpation. Throughout the epidemic the fetal movements were felt more strongly. The total cases were then twenty-one; two of these were delivered during the prodromal stage.

First case had temperature of 102.2° and chill on second day, after birth. Second day similar symptoms. On the third day both complained of vertigo, aching, etc., during confinement. In nine other cases labor occurred after the onset of the acute symptoms, the fever ranging from 100.2° to 104.9°.

Of the first eleven cases, pregnancy terminated at the tenth month in only five, one aborted in the fifth month, five were prematurely delivered at the beginning of the ninth month. The intensity of the labor pains was augmented notably.

The labors were mostly rapid; after the expulsion of the fetus hemorrhage occurred in five cases, on account of weak uterine contraction.

The puerperium was disturbed in nine of the first eleven cases; the fever was not high and lasted from

one to eight days. Subinvolution occurred four times. One of the children had a vulvo-vaginitis; her mother had no discharge.

Uterine hemorrhages lasting several days complicated some of the recovery.

Involution of the uterus was retarded. Infectious processes in the uterus did not occur.

He quotes Amann, who also observed post partum hemorrhages and

offensive lochia, and refers to Engel, who observed subinvolution.*

From the painstaking observations of Moeller and careful recording of symptoms and complications and from the record of my own case, we may justly conclude that influenza occurs during the puerperium, and that subinvolution, rapid delivery, and post partum hemorrhages are most apt to occur as complications.

2332 Washington avenue.

BRACHIAL PARALYSIS FOLLOWING SURGICAL ANESTHESIA: REPORT OF TWO CASES.

BY H. S. CROSSEN, M. D.,

Clinical Professor of Gynecology, Washington University; Gynecologist to Washington University Hospital, and Chief of the Gynecological Clinic.

Paralysis of one or both arms in a patient just subjected to operation is one of the unpleasant surprises of surgical work. It is a subject in which any operator may suddenly acquire a personal and absorbing interest. On account of the importance of the subject I feel some explanation is due the members of the society for the incomplete way in which I present it. I had no intention of presenting this subject until I had had time to investigate it to some extent, both for my own satisfaction and to make its presentation more interesting, but the worthy chairman of our executive committee insisted on having it to-night. So, asking your indulgence, I shall present the scattered notes I have of these two cases and make a few general remarks, which may serve as a basis for discussion.

The consideration of the interest-

ing points in neurology I must leave to my neurological friends. I approach the subject from the surgical standpoint—from the standpoint of the operator who conducts his patient safely through a serious operation, leaves her in good condition with everything favorable to prompt recovery, and returns later to find her still in good general condition, but with one or both arms *completely paralyzed*.

Case 1.—Mrs. B., age fifty, was sent to me for operation for a large uterine tumor, a fibromyoma. It was while the Congress of Arts and Science was being held in connection with the World's Fair, and Dr. Howard A. Kelly was here as chairman of the section on gynecology. One of our medical societies wished him to hold an operative clinic, and appealed to me for patients. I placed this patient and another one at Dr. Kelly's disposal.

*I am indebted to Dr. Georg Gellhorn for translations from the German.

The operation was on September 28th, in the clinical amphitheater of Mullanphy Hospital, before quite an audience of physicians. Perhaps some of you were present and can recall the case. Dr. Kelly operated with his usual skill and expedition, and the patient convalesced without

came apparent that she could not use the arm. It lay absolutely helpless at her side. I then made inquiry as to the position of the arms during anesthesia, and understood from the nurse that the arms were at the sides of the chest, with the forearms flexed and pinned by the sleeves. I was

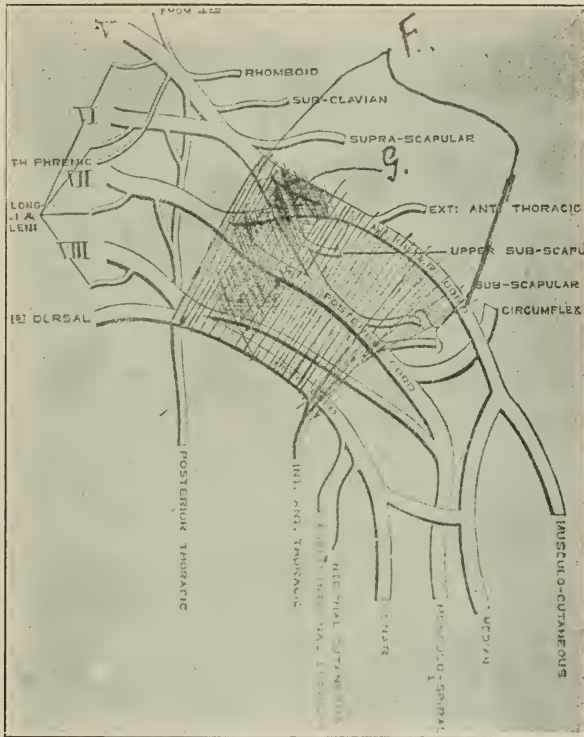


FIG. 1.—Diagram of left brachial plexus from Gray's anatomy. F, Probable field within which a lesion producing these symptoms would occur. G, Location of compression groove in this cadaver.

incident as far as the operative work was concerned.

But paralysis of the left arm was present when the patient recovered from the anesthesia. As soon as the patient became conscious after anesthesia, she complained of pain in the arm. This pain was persistent and troublesome, and as the patient regained complete consciousness it be-

satisfied with this, and made no further inquiry in this direction until after the second case, when I took up the subject with the anesthetist and found I had misunderstood the nurse as to where the arms were pinned. The exact position of the arms during anesthesia is described by the anesthetist in his report, which is given later. The pain in the arm gradually

disappeared after several days, but the paralysis continued.

I requested Dr. M. A. Bliss to examine the arm, to determine the exact form of paralysis present, and to follow up the neurological aspects of case. He reported as follows, his first examination being made four days after the operation:

be moved only by aid of the accessory muscles of the back and neck.

A day or two later some motion appeared in the fingers and improvement occurred from the periphery. Pain persisted for a week or more, but was not severe. The anesthesia diminished as the motor power increased.

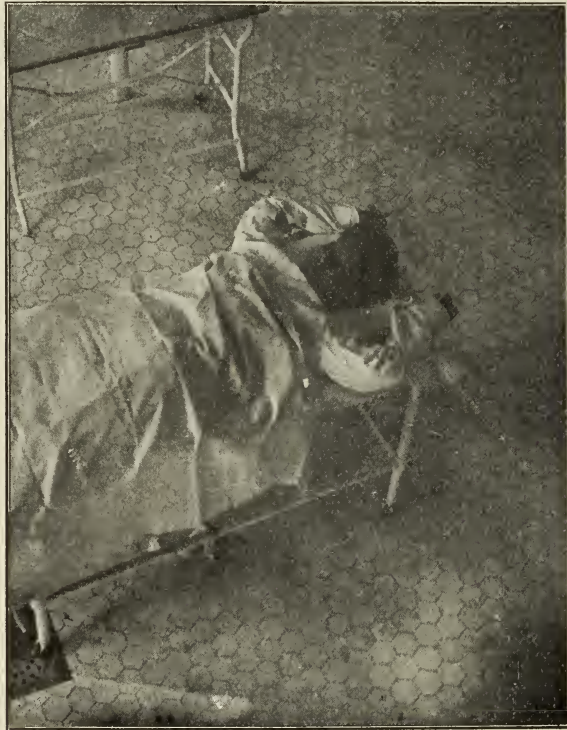


FIG. 2.—Position of arms.

"On first examination the arm was entirely limp and the fingers and forearm, and to a less extent the upper arm, were anesthetic. The arm and hand were moved entirely by means of the other hand. There was considerable pain. The extent of the paralysis indicated involvement of the entire plexus, as the shoulder could

The progress was relatively rapid during the first month, the forearm and hand making quite a measure of recovery. Improvement at the shoulder and in the upper arm came about more slowly and progressed tardily."

Figure 1 is a diagram of the plexus reproduced from Gray's Anatomy. On this is indicated, by the lightly

shaded area (F) the probable field within which a lesion producing such symptoms would be found.

The last examination by Dr. Bliss, made two days ago (February 23), shows the condition at present, five months after the onset of the paralysis:

"The patient has good use of the forearm and hand, and can extend the upper arm to somewhat less than a right angle to the body from below

tumor was probably a pediculated fibroid—a very natural supposition, as the most prominent part of the mass was in the lower abdomen, below the level of the umbilicus.

On examination, however, I found that this prominence was simply part of a large deep-seated mass which extended upward into the kidney region and occupied nearly all the left side of the abdomen. Further investigation showed that the growth was



FIG. 3.—Position of arms.

upward. The muscles that raise the arm above a right angle are still affected to some extent. Tactile, temperature and pain senses are everywhere acute."

Case 2.—Mrs. M., age twenty-one, was referred to me December 31, 1904, for operation for a large tumor occupying the left side of the pelvis and abdomen. The family physician, on cursory inspection, thought the

a kidney tumor. The colon resonance was not distinct at first, the colon apparently being flattened out between the tumor and the abdominal wall, but when I inflated the bowel in the office examination the colon resonance was easily obtained.

I did a nephrectomy by the trans-peritoneal route—choosing that method because of the large size of the growth, which extended to the

pelvis. The patient stood the operative work well and made a prompt recovery from the operation.

But there was a temporary paralysis of one arm. Immediately after the operation, as the patient was regaining consciousness, she complained of pain in the left arm, and it was noticed that she did not move the arm. When she was fully conscious there was still no movement in the arm; it was completely paralyzed.

co-ordinate movement can be executed in all directions. Grasp much reduced. Finger movements inco-ordinate. Astereognosis quite marked—unable to recognize with any readiness a knife, pen or medicine glass, placed in the hand. The two points of the esthesiometer at 10 m. m. felt as one. Heat and cold recognized as such only when pronounced, on hand, forearm and upper arm. The pectoral muscles are competent but the deltoid



FIG. 4.—Arm by side.

In a day or two, however, movement appeared in the fingers and gradually extended to other parts. The paralysis in this case was not nearly so severe as in the other case.

At my request Dr. Bliss examined the arm at different times, and his findings were as follows, his first examination being made January 12 (five days after operation).

"January 12. Left arm very weak in extensors of wrist, but a certain in-

is almost entirely disabled. Is unable to hold arm vertical while lying in bed.

Pain sense is reduced but nowhere entirely gone. Can recognize sharp points as such over the entire arm, but they feel less sharp than on the sound arm.

There is no general tenderness on pressure. The arm can be grasped firmly at all levels without discomfort to the patient.

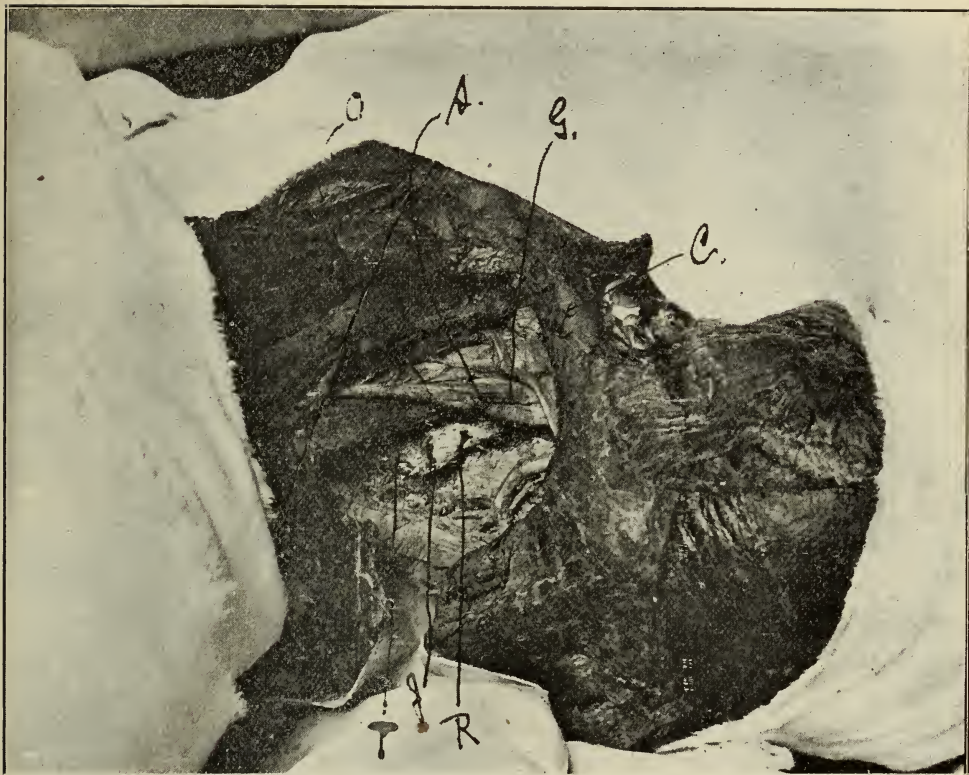


FIG. 5.—Arm by side. C, Clavicle. R, First rib. T, Transverse process of first dorsal vertebra. O, Outer trunk of plexus. S, Stump of suprascapular nerve. G, Compression groove.

The location of the lesion was evidently the same as in the first case, and was situated somewhere within the shaded field in Fig. 1.

January 19. Power to move all muscles of the shoulder group has returned but is weak. Arm can be held upright if it is leaning against something. Anode closing contraction stronger than cathode, *i. e.*, slight reaction of degeneration. Some soreness is complained of about the shoulder, especially if arm is raised above the head.

Sensory function has improved but patient is still unable to recognize readily objects placed in the hand.

There is less subjective numbness. The muscles are generally flaccid.

January 23. Patient is able to recognize two points of the esthesiometer at about normal distance (3 or 4 m.m.) on little and ring finger and on the ulnar side of the middle finger. The points felt as one on radial side of middle finger and on fore finger and thumb. Stereognostic sense much improved. In recognizing objects placed in the hand the patient relies principally on tactile sense of the ulnar portion of the hand.

There is distinct improvement in strength of all the muscles moving the upper arm, as well as those mov-

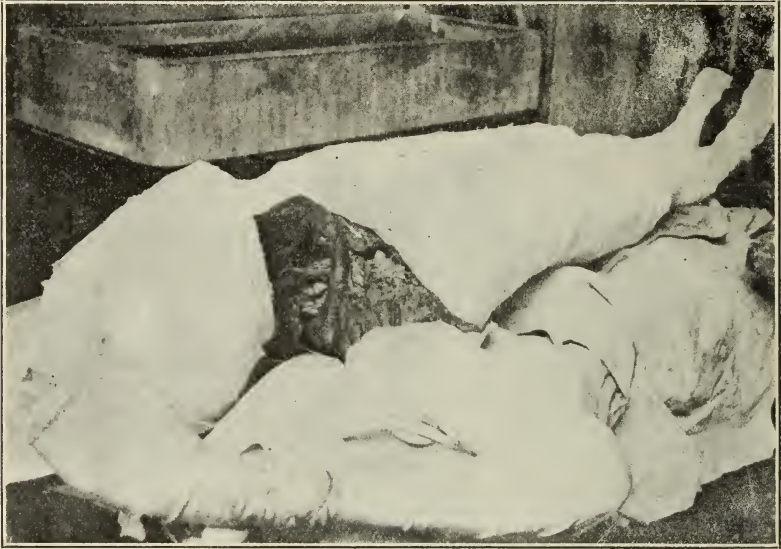


FIG. 6.—Arm above head.

ing the lower arm. Movements are more co-ordinate. The nails, especially of the thumb, fore-finger and middle finger, show some of the appearances of a neuritis—a clinging of the nail to the dead-looking epithelium under its free edge, ridging of the nails, etc.”

The last examination (February 22) shows the condition at present, seven weeks after the onset of the paralysis.

“February 22. Motor power in the hand, forearm, and to a less extent in the upper arm has been restored. Sensation is almost normal over the entire area originally affected. The patient can raise the upper arm to about the level of the shoulder, but not above it.”

Both of these patients were in fair general condition. They had lost some in weight in the last few months preceding operation and were somewhat anemic. But they had no septic

process, no drug habit, and no intoxication that would predispose them to neuritis.

The particulars of the anesthesia in each case are contained in the statement of the anesthetist, who reported to me as follows:

“Mrs. B. Hysterectomy for fibroids. Anesthetic, ether (Squibb’s); amount used, five ounces; duration of anesthesia, forty minutes. Took the anesthetic quietly and well, requiring no stimulants. Pulse varied between 80 and 100 and was good at both wrists.

Patient was in the Trendelenburg posture for thirty minutes, the shoulders being against the steel shoulder-braces of the table.

During anesthesia both arms were flexed at elbows to a position of comfort and raised so as to bring both wrists about two inches above the head and about twelve inches apart—a position entirely comfortable and

one I have used in nearly two hundred cases of anesthesia without paralysis developing.

There was no pressure of the arms against the table, as the arms rested on pillows. Noticed no unusual stretching or strained position while patient was being moved."

"Mrs. M. Transperitoneal nephrectomy for tumor of the kidney. Anesthetic, ether, given with Allis inhaler; Squibb's ether used; amount, used, six ounces; entire duration of anesthesia, eighty-five minutes; took anesthetic well. The only stimulant given was strychnia, 1-30 grain, given

hypodermically over right shoulder. Pulse regular in force and rhythm, varying between 86 and 98.

Trendelenburg position not used. Arms in position described in other case. No pressure of any kind on arms.

When patient was being rolled onto the right side to permit of counter-opening for drainage being made in the left lumbar region, the left arm was pulled upon somewhat, though not strongly. The pull was not in an upward direction but across the chest. Noticed nothing else of particular interest. No unusual temperature of



FIG. 7.—Arm above head. C, Clavicle. R, Rib. T, Transverse process. O, Outer trunk of plexus. S, Stump of suprascapular nerve.

the operating room, no draught of air on the patient, nor any cold, wet towels placed near the nerves affected."

To determine whether or not the shoulder supports used in the first case, while the patient was in the Trendelenburg posture, could make injurious pressure on the brachial plexus, I experimented with a person on the table. The shoulder supports were placed in various positions, but in no position did they make pressure in the region of the brachial plexus. They were so long and so much curved that they extended beyond the clavicle and impinged upon that bone. In every position of the arms, the clavicle protected the adjacent soft tissues from pressure. As to what regions at the root of the neck are pressed upon by shoulder supports in other tables, I do not know, but that is certainly a point to be watched.

In order to get clearly before you just the position of the arms in the two cases under consideration, I arranged with the anesthetist to get a photograph of a person with the arms in exactly the positions which they occupied during anesthesia. Figures 2 and 3 are two views of the arms so arranged.

This position of the arms is a very common one during anesthesia. It is also a very dangerous one, because of the possibility of paralysis following.

In order to satisfy myself as to the identity of the bony structures between which compression of the soft tissues (including the brachial plexus) takes place with the arms in this position, I experimented some with a cadaver. It at once became evident

that in the particular cadaver I was working with (and it was apparently a normal one), the compression undoubtedly took place between the clavicle and the posterior part of the first rib. The majority of investigators have held that the compression takes place in just this way in most cases, and the point is shown so clearly in the cadaver that I have brought it before the Society that each member present may see for himself the marked compression of the plexus between the clavicle and the first rib, when the arm is raised. It is through the kindness of Dr. Terry, Professor of Anatomy in Washington University, that I am permitted to make use of this cadaver. For the dissection, I am indebted to Mr. H. H. Kirby, of the third-year class.

Those members seated near can see the large space between the clavicle and the root of the neck, when the arm is beside the chest. (Fig. 4 shows the general position of the arm and other parts. Fig. 5 is a closer view of the same, showing somewhat in detail the parts under consideration.)

Now, when the arm is raised beside the head, as it was in the two cases reported tonight, this space is obliterated, and there is decided compression of the tissues at the root of the neck (Figs. 6 and 7). This compression takes place between the clavicle (C, Fig. 7) and the posterior part of the first rib (R, Fig. 7). The dissection has been carried far enough to expose the margin of the first rib and also the transverse process of the first dorsal vertebra, to which the tuberosity of the first rib is attached. (Fig. 7, R is the rib, T is the trans-

verse process of the vertebra, and the line J marks the junction of the transverse process with the tuberosity of the rib.)

It is impossible, by any manipulation of the arm, to cause the clavicle to go high enough to compress tissues against the transverse processes of the vertebræ.

The interval left between the clavicle and the rib when the arm is raised is very small, so small that the tissues normally lying there are compressed. That the amount of compression is very considerable is shown by the fact that a transverse compression groove remains across the plexus, where the clavicle impinges upon it. (G, Fig. 5, a broad, shallow groove, extending across the outer nerve cords. It can be distinctly seen in the photograph, though no special effort was made to bring it out.)

The same fact may be easily ascertained by allowing a finger to be caught between the clavicle and the rib. (Some members tried this, and were quickly convinced.)

The portion of the plexus which is compressed by the clavicle in this particular cadaver is that part just distal to the origin of the suprascapular nerve. (Fig. 7, S is the short stump of the suprascapular nerve, the remaining part having been cut away. Just below this is seen the compression groove made by the clavicle when the arm is raised above the head. In Figs. 8 and 9 the suprascapular nerve is shown intact (S), and also, just below it, the compression groove (G). This photograph was made at an earlier stage of the dissection, before the suprascapular nerve was divided

and before the rib and transverse process were exposed.) The area of compression is, as you see (Figs. 7, 8, 9), just about where the trunks divide to form the cords. It is best marked at the point of division of the outer trunk (Fig. 8 and Fig. 1).

This compression area falls well within that portion of the plexus the injury of which would be likely to give rise to just the symptoms presented by the two cases under consideration. (This is seen by superimposing the compression groove made by the clavicle, upon the shaded area in Fig. 1.)

Another point of interest in connection with this area compressed by the clavicle is that the greatest compression takes place at the outer part of the plexus (G, Figs. 5 and 8).

Through the kindness of Dr. Willard Bartlett I am permitted to give the particulars of a similar case of brachial paralysis which occurred in his practice.

Mr. S., age twenty-one, was operated on by Dr. Bartlett March 8, 1901, for recurrent appendicitis. Chloroform was the anesthetic used, and the duration of anesthesia was about an hour and a half.

The arms were above the head during anesthesia.

Both arms were affected by the paralysis. On the right side it was comparatively slight, and cleared up in a month. On the left side it was severe, and persisted for many months. The paralysis was noticed immediately after recovery from the anesthesia.

The neurological examination was made by Dr. S. I. Schwab, who saw the patient five days after operation.

The condition of the left arm at that time was as follows:

"The rotator muscles not affected. Clavicular portion of trapezius completely paralyzed. Adductors and abductors partially paralyzed. All muscles which act on the forearm and fingers completely paralyzed. The affected muscles are slightly sore to the touch. Sensation in the hand is as if the skin were thickened or a glove were on the hand. Sensation of heat delayed. Hyperesthesia to cold. Sensations of pain are delayed and there is hyperesthesia to same, except over palmar surface of the first and second phalanges of the forefinger and middle finger. Faradic reaction decreased to both muscle and nerve. No reaction of degeneration. Type, Erb's shoulder and arm paralysis."

Progress toward recovery was slow, and it was about a year before recovery was complete.

Quite a number of these cases of brachial paralysis have been reported in this country and in Europe. As far as I have been able to determine from a cursory reading of some of the literature at hand the subject was first brought prominently before the profession by Budinger¹, who, in 1894, reported nine cases from Billroth's clinic in Vienna. A few cases had been reported before and a number were reported afterward.

The attention of the profession in America was called to the subject by Garrigues², who, in 1897, reported

three cases of brachial paralysis following anesthesia. Other cases have been published from time to time. In 1903 Cotton and Allen³, of Boston, published four cases, in each of which both arms were paralyzed, and collected from literature thirty cases in which one or both arms were paralyzed.

On account of the limited time at my disposal I have not been able to look up the literature as I wished, but as far as I have gone the cases seem to be very much alike, all presenting a total, or nearly total, plexus paralysis—the most marked involvement, however, and the most persistent involvement being in that portion of the plexus supplying the shoulder muscles.

The type of paralysis is, I believe, designated by neurologists as "Erb's paralysis." Its rather frequent occurrence following surgical anesthesia for any kind of an operation makes it of particular interest to every one who is called upon to give an anesthetic, and to every operator, for the operator necessarily feels responsible in a measure for all that takes place during anesthesia, though he be not concerned directly with the anesthetic.

The question as to just how this paralysis is brought about during anesthesia is one of much interest and importance. Considerable experimental work has been carried out by various surgeons, anatomists and neurologists with a view to determining this point, and with very satisfactory results. The cause or causes, and the various other points mentioned below, seem fairly established

1. *Archiv fuer klinische Chirurgie*, 1894, No. 47, p. 121.

2. *Am. Journal of Medical Sciences*, 1897, Vol. 113, p. 81.

3. *Boston Medical and Surgical J.*, 1903, Vol. 148, p. 499.

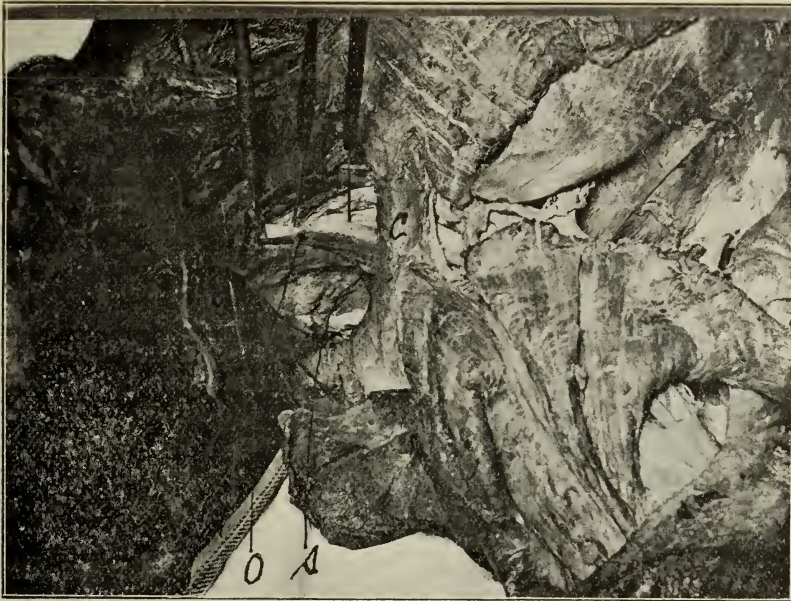


FIG. 8.—Arm by side. C, Clavicle. O, Outer trunk of plexus. S, Suprascapular nerve. G, Compression Groove.

—most of them having been established by Budinger in his early investigation of the subject.

1. *Frequency*.—In spite of the scarcity of published cases, the accident is evidently of rather frequent occurrence. Nearly every writer on the subject mentions that he has heard of a number of cases in his locality. My experience has been similar.

I think this danger from anesthesia, and the way to prevent the trouble, should be distinctly mentioned in every text-book that deals with the subject of surgical anesthesia. Such mention and warning would prevent much suffering and disability.

2. *Cause*.—I am speaking of course of brachial paralysis—not of other forms of paralysis that may be found after anesthesia, such, for example, as simple musculo-spiral or ulnar

paralysis, due to the arm hanging over the edge of the table, or central paralysis, due to hemorrhage or other lesion in the central nervous system. It is established that the usual cause of these brachial paralyses following anesthesia, is found, not in any previously existing toxæmia nor in the toxic effect of the anesthetic nor in the lowered vital resistance (though all these may predispose to it), but in the position of the arms during anesthesia. Concerning the etiology I will quote from the article of Cotton and Allen, who seem to have considered the subject with much care.

“There is no question, from the data, that the position of the arms is the cause of the trouble. There is no case recorded in which the trouble occurred when the arms lay on the chest or at the sides of the body; in all cases where there is a record of the

position, they were either above the head or at least well abducted. That long-continued stretching upward of the arms may affect the plexus is shown by the rare occurrence of a fleeting numbness, or paresis, when the arms are so placed in sleep, and, still better, by the cases reported where passive hanging from gymnastic apparatus sometimes produces a partial paralysis of the Erb type (but including the serratus magnus and sometimes the levator anguli scapulae and rhomboid), sometimes of rather obstinate character.

It is easy to see how positions which under ordinary circumstances may give no trouble may readily become exaggerated from the muscular relaxation of anesthesia. With such relaxation and a continuance of the vicious position for one or more hours, it is easy to conceive that harmful pressure or tension may result. Just how this happens is not fully determined. There are three possible mechanisms to be considered:

1. Pressure on the plexus: (a) exerted between the clavicle and the transverse processes of the vertebrae, especially the fifth and sixth; (b) between the clavicle and the first rib.

2. Tension on the roots or plexus from the position of the arm.

3. Tension from the position of the head and neck, the arm being abducted.

The relation of position to the involvement of single roots clinically proves to be of no use in helping to determine the manner of damage. Where we find it noted that the arms were, during narcosis, stretched above the head, we find paralysis of all, or practically all, the brachial plexus,

in five cases; of upper roots alone, in three cases; of circumflex (deltoid alone), in one case; of lower roots and part of upper roots, in one case. When the arms were abducted and not stretched upward, we find paralysis of the whole plexus, one case; of lower roots especially, one case; of upper roots, partly of lower, one case. These results are too inconsistent to be conclusive as to detailed lesions.

It would seem that it would be easy to determine these effects by experiment on the cadaver. In fact, it is not so easy. As each investigator has in turn advanced his theory he has always "proved" it by cadaver experiment.

The writers (Cotton and Allen), in their turn carried out patient observations on a number of partly dissected cadavers, trying to verify the alleged effects of position, especially with regard to special nerve roots pressed on in special positions. To our surprise we found it very hard to produce any considerable tension or pressure on the brachial plexus by any position akin to those occurring clinically.

The following results, such as they are, were constant in different cadavers:

With the upper arm abducted to a right angle and supinated and the elbow dropped back, the median, the musculo-spiral and especially the ulnar nerve are under some tension, and there is some stretching of the plexus, as a whole, over the first rib and over the head of the humerus.

With the arm above the head, no nerve save the circumflex could be put on the stretch. As for the pressure exerted by the clavicle on the

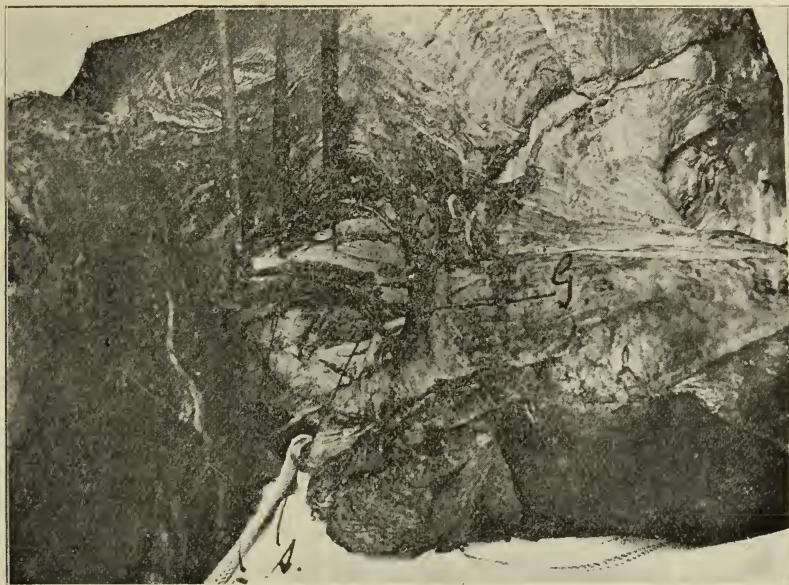


FIG. 9.—Arm raised above head. C, Clavicle. O, Outer trunk of plexus. S, Suprascapular nerve.

plexus either against the rib or against the transverse processes of the vertebrae, it could not definitely be demonstrated in any position that could be compared to those occurring in narcosis. As Guillaum and Duval pointed out, the plexus, when the arm is extended upward, moves into the hollow of the clavicle and is protected. Such pressure as is exerted is between the clavicle and the masses of muscle in the neck over the transverse processes. The plexus is slack and there is not even a chance of stretching it."

Further along in the paper, the following is given as one of the conclusions:

"The cause of this paralysis is not toxic, but mechanical. It occurs only when the arms are long held above the head or lie in abduction—never if they lie flexed on the chest.

The mechanism is pressure on the nerve roots, probably between the

clavicle and the muscles over the transverse processes of the cervical vertebrae or from stretching over the head of the humerus in abduction."

So it is clear that the paralysis is ordinarily due to the arms being above the head or in abduction during anesthesia. As to just exactly how the pressure or stretching takes place, that is a matter of secondary importance and one upon which there is some difference of opinion. I gave the above rather lengthy quotation to show this difference of opinion as regards the exact manner of pressure. Probably the exact mechanism varies somewhat in different cases.

The pressure in most cases, however, is evidently due to compression of the plexus between the clavicle and the structures overlying *either* the first rib or the transverse processes of the lower cervical vertebrae. The majority of investigators, among whom I may

mention Budinger, Wigand, Kron, Gaupp and Garrigues, hold that the bone against which the soft structures are ordinarily compressed is the first rib.

Also, you will notice, that such is the case in the cadaver we have here tonight. Of course it does not necessarily follow that it is so in all cadavers. You can see, furthermore, that this compression takes place whether the arm is placed above the head or simply abducted.

Other possible sources of danger in this connection, mentioned by various writers, are:

Application of tight straps around the shoulders, as in certain forms of apparatus for holding up the lower extremities with the patient in the lithotomy posture.

Extending the head far to one side, thus stretching the nerve trunks, making them more susceptible to pressure or compressing the nerve roots as they leave the spinal canal.

Marked abduction of the arm for a long time, as in certain operations about the axilla.

Pressure by the arms of the anesthetist upon the brachial plexus at the root of the neck.

3. *Prophylaxis*.—This is simple and certain. Keep the arms beside the chest. If, on account of some particular operation, it is necessary to put the arms above the head or in strong abduction, change from this dangerous position as soon as possible.

Other points of interest are the *prognosis*, the *pathological changes* in the affected nerves and the *treatment*. The consideration of these points I must leave to my friends, the neurologists.

I may say, however, as regards *prognosis*, that all the cases of which I read seemed to follow about the same course as the cases reported tonight, *i. e.*, rapid improvement for the first few weeks and very slow improvement later, with some trouble persisting for many months. I found mention of only one case in which there resulted permanent disability. That was a case of Mally's, in which there remained permanently partial paralysis of both deltoids. In that case there was a chronic arthritis of each shoulder joint and it is a question how much of the persisting trouble was due to the arthritis.

As to *pathological changes*, in the two cases of Budinger's that came to post-mortem, ordinary examination in one failed to show any distinct change, and in the other microscopical examination of the affected plexus gave the same result.

In regard to *treatment*, the treatment in the two cases reported tonight was about the same as that recommended by most writers, namely, relief of pain, by hot applications and arranging the arm in comfortable positions for the first few days, and later electricity, friction or light massage, and voluntary movements, accompanied, of course, with a tonic regime.

In regard to *medico-legal* complications, I have so far found no case in which such a complication occurred. In this connection I would call attention to the fact that there is some unknown factor in these cases—some predisposing or exciting cause which has not yet been brought clearly to view. Of the thousands of cases of anesthesia with the arms above the head or

lying in abduction, comparatively few have had paralysis. Just why these few patients should develop

paralysis while the vast majority who go through the same process do not, is a matter still undetermined.

A NEW TEST FOR DETECTING MINUTE QUANTITIES OF ALBUMIN IN URINE—DEMONSTRATION, WITH TWO SPECIMENS.

BY AMAND N. RAVOLD, M. D., St. Louis.

For several years I have been experimenting with a number of the more delicate tests used for the detection of small quantities of albumin in urine, but they are associated with so many warnings and have so many fallacies that it is a real pleasure to at last find one which seems to be free from defects. Some time ago Spiegler published a report of his experiments with a test composed of tartaric acid, corrosive sublimate, glycerine and water. Later, Jolles modified and improved this reagent by replacing the tartaric acid with succinic acid, and the glycerine with sodium chloride. The Spiegler-Jolles solution is made up as follows:

Corrosive sublimate.....	10 gm.
Succinic acid	20 gm.
Sodium chloride.	20 gm.
Water	500 c.c.
Dissolve with heat.	

This is an exquisitely delicate test for albumin, and is said to detect 0.002 of a gram of albumin to the litre. The specific gravity of the solution is 1050. Nitric acid will detect 0.02 of a gram of albumin per litre. It is therefore seen that this test is ten times as delicate as the nitric acid.

Within the last week two interesting specimens of urine have been examined by me, which I wish very much to demonstrate to the society

to-night. The first is from a patient referred to me by Dr. A. S. Barnes, Jr.: a man sixty-six years of age, bedridden, suffering with neuralgic pains and other symptoms that were extremely vague. Upon auscultation I found the first sound of the heart booming and prolonged, with the second clear, sharp and accentuated. This called my attention to the arteries, for I felt the heart was pumping against an obstruction. I found the arteries of the lower extremity markedly sclerotic, and finally a diagnosis of arterio-sclerosis was made. Twenty-four hour urine was collected, which amounted to twenty-six ounces. The specific gravity was 1037. It showed a distinct layer of albumin when floated on the Spiegler-Jolles solution, but no albumin whatever to heat, nitric acid or potassium ferrocyanide tests. Microscopically, the centrifugalized sediment showed a large number of hyaline casts and quite a number of finely granular casts, large and small, and a few renal epithelia. That this is a pathological and not a physiological albumin in the urine is proved by the microscopical evidence and by the history of the patient. Further, this test does not show albumin in the urine of a normal healthy man, although it is claimed by some authorities that fully as high as 30 per cent. of all persons

in health show traces of albumin. So far I have not been able to find albumin in the urine of a healthy man with this test.

I will now demonstrate this specimen of urine. You will see that I have now applied the three tests—heat with a little acetic acid, nitric acid by the layer method, and potassium ferro-cyanide by the drop method, and not the slightest trace of albumin can be found. But when I acidify this urine, filter it, and then float it gently upon the Spiegler-Jolles solution by means of a pipette, or upon this solution as modified by me, as I will explain later, a distinct white ring immediately appears at the point of contact of the two fluids, and this ring does not disappear upon heating.

The second case came to me through the dispute of two physicians over an applicant for life insurance. The first specimen of urine, passed in the presence of a physician, contained a trace of albumin to heat and nitric acid tests. A second specimen, passed in the presence of a second physician the next day, showed no albumin to the ordinary tests. A third specimen, examined by both physicians together, showed no albumin to the standard tests. The first physician was not satisfied with the result, and brought the urine to me. When floated on the Spiegler-Jolles reagent, or my modification of it, a distinct white ring of albumin was precipitated. The centrifugalized sediment, examined microscopically, showed a number of hyaline casts and a few renal epithelia.

These two cases, to my mind, emphasize the importance of a delicate test that is reliable for the detection

of traces of serum albumin in urine, and it is especially so in cases like that of the insurance applicant. I have not had the opportunity of seeing this individual, but the physicians state that he is a robust man, of florid complexion, about forty years old, and has been a free drinker of alcoholic beverages for a number of years. He very probably is suffering from a chronic interstitial nephritis in its primary stage, and it is in just such cases as these that we can do so much for the welfare of the individual, if the disease is detected early.

Recently, Dr. R. M. King and I, while working with a urine of the specific gravity of 1037, found that no matter how careful we were in floating the urine upon the surface of the Spiegler-Jolles, it was almost impossible to keep the two fluids from mixing intimately. It occurred to me that we might improve the solution if we increased its specific gravity. I therefore tried a number of ways of doing this, and finally hit upon the sulphate of magnesium, which increases the specific gravity of the fluid without interfering in any way whatever with its delicacy. The method of preparation is as follows:

Corrosive sublimate.....	2 gm.
Succinic acid.....	4 gm.
Common salt.....	4 gm.
Water.....	50 c.c.
Heat.	

This is added to 50 c.c. of a saturated solution of sulphate of magnesium. Its specific gravity is 1150. The solution is easily prepared, is cheap, and very simple of application. This in my laboratory is known as the Jolles-Ravold, to distinguish it from the Spiegler-Jolles. The manner of testing a specimen of urine

with this solution for albumin is as follows:

The urine is first acidified by adding 1 c.c. of acetic acid to 5 c.c. of urine; filter. Then, by the aid of a pipette, the urine is slowly floated down upon the surface of the reagent in an inclined test tube. If a ring of albumin appears, then heat. The albumin will not disappear. Further

examination should be made for globulin, nucleo-albumin or mucin, and the albumoses.

For a rapid orientation, as the Germans would say, in the albuminous field in urine examination, I know of no test which is so delicate, so easy of application, so simple to prepare, and so free of fallacies, as these two solutions.

PRESENTATION OF SPECIMEN OF SARCOMA AND PATIENT.*

BY DR. JOHN C. MORFIT.

We have not yet proven that tumors are the result of local conditions, but it is quite generally believed that benign growths have no constitutional relations. This belief is less firmly fixed when we come to consider malignant tumors, and while they are probably local and possibly of unknown bacterial or parasitic origin, there is also some evidence that they are a manifestation of a constitutional disease. If the malignant tumors have a constitutional causative relation, it is best typified in the sarcoma group, the most malignant of all classes. Without going over in detail a time-consuming rehearsal of numerous statistics, I prefer to express a few general, practical observations obtained from a review of the literature and my own experience.

The surgery of sarcoma deals with the local manifestations of the growths, neither admitting nor denying a constitutional relation. The benefits of surgical treatment cannot be claimed to go much farther than a very uncertain prolongation of life

in the great majority of cases. I can find mention of only one case living and well fifteen years after operation. There are numerous cases reported as well and healthy after from one to five years. But the majority of all cases operated upon die of a return usually within the first year and generally within three to six months. Some cases reported as having safely survived the three-year limit have died of a return of the growth either locally or remotely as late as five years after the primary operation. The frequently observed favorable influence of an intercurrent attack of erysipelas on the sarcomata is further emphasized by the fact that most of the cases reported as having recovered after operation were cases in which healing had taken place by secondary process, that is, in which repair and apparent cure followed infection.

In addition to surgical measures of treatment, there are two others which have their advocates and an equally long list of improvements and recoveries with quite as great a list of ultimate returns and deaths. As a recommendation of surgical measures it

* Read before the St. Louis Med., February 18, 1905.

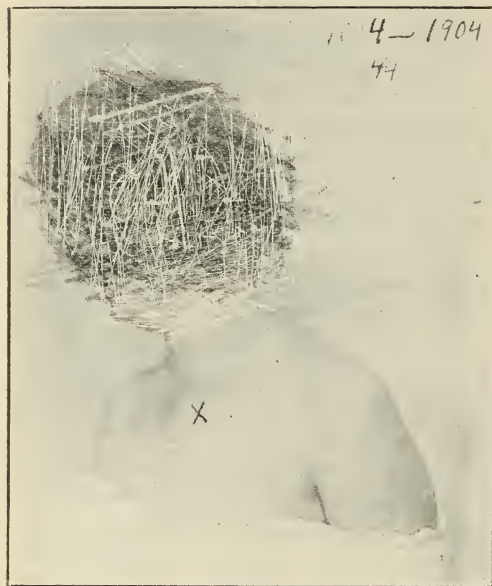


FIG. 1.—Lateral view of tumor marked X.

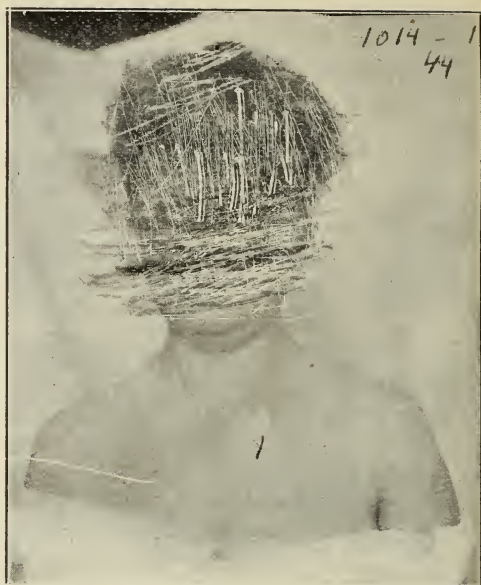


FIG. 2.—Front view of tumor marked X.

may be observed that these two methods, the x-rays and Coley's fluid, are advised only as auxiliary to operative treatment or for use in inoperable cases. The gravity of the cases treated surgically is much less than the gravity of the cases treated by non-surgical means. It would seem unfair to compare the results of the operable cases with the results in the inoperable cases, and this would be more strongly suggested were the surgical results markedly better than the non-surgical results. But as a matter of fact, the results from x-ray treatment and from the use of Coley's erysipelas and prodigious cultures as reported, read quite as encouragingly as surgical statistics. At the same time we cannot deny that some cases have apparently recovered without any treatment—cases as carefully studied and reported as those treated by any other means.

If inflammation and infection does have an inhibitory influence on sarcoma, then the advent of modern aseptic surgery can offer little more hope than the surgery of a half century ago, and that hope would be due to the earlier recognition and more radical treatment to which these growths are now subjected, and not to the comparative cleanliness. Deliberate infection would increase the primary mortality, and for that reason should not be encouraged.

All methods of treatment, then, are defective and present little hope. I believe serum therapy probably holds the secret. Unaided, surgery can do no more than it has done. For the present a combination of surgical with medical and x-ray treatment must be employed, but surgical measures must receive the earliest and most serious consideration.

The patient and specimen I present

to you tonight is reported as a recovery, but not a cure, and my object in calling your attention to it is to illustrate how far we may go in eradicating the local trouble, how complete the eradication may be, and yet how certain a return is likely to be. The case has been treated by the three measures I have mentioned and will be reported rather in detail to bring out the interesting points.

REPORT OF CASE.

The patient is a single white woman, aged twenty-five years, of good habits. Mother died of facial cancer, aged seventy-eight, family history otherwise irrelevant. Previous history, always enjoyed robust health, menstruated first in sixteenth year, menstruation always normal, lasting three or four days, and the interval had always been five or six weeks. Ceased menstruating four months before coming for treatment.

The present trouble began less than four weeks before presenting herself for treatment. At that time she noticed a little swelling to the left of the manubrium. It grew very fast, unaccompanied by pain, fever or general symptoms. There was no redness or tenderness. Ten days after its appearance she painted the growth with iodine, and subsequently used hot applications and massage until she began to have local pain. She then came to my clinic at Mullanphy Hospital. Examination led to the immediate diagnosis of sarcoma. Just before entering the hospital pain was so great that it caused suffering to turn over in bed, and for two weeks previously she had given up all her household duties on account of the

pain in her left arm caused by sweeping and laundry work. She had weighed 168 pounds, but had steadily lost during the last year until the present minimum of 138 was reached. She had not noticed recent rapid loss in weight.

Physical Examination.—Height five feet six and a half inches, blond type, hair reaches below waist, has never been cut, eyes clear, pupil reflexes normal, mucous membranes healthy, teeth in good condition, moderate number of fillings, patient is fleshy with solid fat and muscle. Two small moles on face, one over the left nasal bone one-eighth inch in diameter, and one over the left brow one-sixteenth inch in diameter; pigmented mole to the right of the lumbar region one-eighth inch in diameter. No glandular enlargement except comparative enlargement of two glands at about the middle of the posterior border of the sternomastoid on the left side, this is difficult to feel and is not made out except by palpation. Heart and lungs both normal except for slightly accelerated action incident to examination. Mammary development is very great, but not pathological. Abdomen rotund and not protuberant, soft and pliable, and has no tender points. Abdominal viscera normal in size and location. No tenderness over the pelvic organs. Uterus anteverted in a normal degree, ovaries palpable, tubes normal, ovaries sensitive to moderate pressure, vagina and cervix of noticeably dark blue appearance. A mucus cyst is present on the anterior cervical lip. The cervix is lacerated in a moderate degree.

Special Examination.—In the boundary between the middle of the sternum

and a line parallel to it and running through the middle of the clavicle laterally, the upper border of the clavicle and the upper border of the margin of the third rib on the left side is a tumor, sessile, immobile, elastic with its summit about an inch higher than the corresponding point on the right or normal side. The skin is not adherent and there are no large veins. This will be illustrated

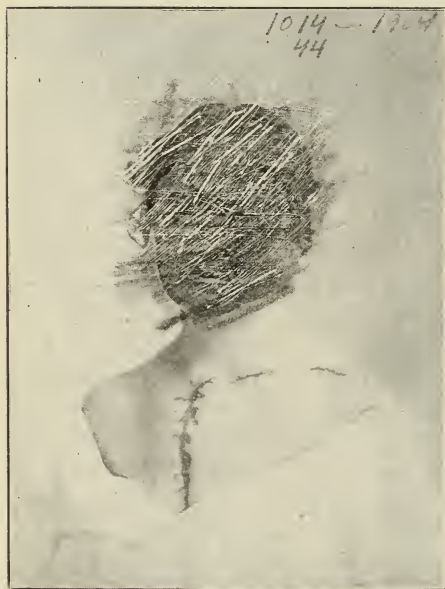


FIG. 3.—Showing result about one month after operation for removal of entire clavicle and much adjacent structure.

in lateral and front view photographs taken before operation, the tumor being marked with an "x."

The age of the patient, rapid and physical symptoms of growth, led to a diagnosis of chondro-sarcoma involving the cartilage of the second rib and contiguous portions of the sternum and first rib, with perhaps a slight involvement of the sternal end

of the clavicle. This meant, then, that a very radical operation must be done if the growth was to be wholly excised. The location over the superior mediastinum and the important structures at the base of the neck and under the clavicle made the operation one of considerable magnitude.

On August 4, 1904, incision was made the whole length of the clavicle and from the interclavicular notch to the lower border of the middle bone of the sternum at its center, these right-angled cuts joined by a small curved one at the ends. From the left sterno-clavicular region a flap was dissected out and backward from the subjacent tumor until the region of the latter was far exceeded. The flap did not include all the fat, as it was desired to not too closely isolate the tumor. The muscles were divided from the middle of the clavicle to the middle of the sternum, extending deep to the costal surfaces. The fascia and muscle attachments were divided at the clavicle and manubrium by separating them with the periosteal elevator. The neck of the manubrium on the right was then separated from the deep or internal thoracic attachments with the same instrument, and a curved costotome put under the one with the point protruding from above around the posterior surface out into the space between the first and second ribs, just next to the sternal border. This made the incision between the median line and the right manubrial articulations with the clavicle and the first rib. The second right costal cartilage was then divided in like manner. Then the costotome was inserted behind, and divided the lower part of

the manubrium. This brought us to the left or tumor side. The tumor divested of all integuments seemed cystic, and was incised, resulting in the escape of necrotic-looking tissue. The interior was washed with bichloride. Before proceeding further the adjacent raw surfaces were covered with bichloride gauze, to prevent infection with tumor material. This was all subsequently removed, as it was necessary to handle the tumor freely. In dividing the costal attachments on the tumor side the pleural cavity was invaded, causing immediate pneumothorax. At this period the operation was stopped and the wound packed with gauze. Then, beginning at the shoulder end of the clavicle, the latter was dissected out of its fibrous bed. After loosening the shoulder attachments, the bone was raised and the adjacent attachments divided close to the bone. This was easily accomplished.

The growth seemed to extend to the posterior surface of the manubrium and the second costal cartilage, and to involve the pleura. The gauze was removed from the pleural opening, which was as large in area as a half dollar. It was impossible to more than reduce its area about one-half with catgut sutures, and to do this the intercostal muscle was brought into service. The left innominate vein was probably punctured with the needle in inserting the catgut sutures. Another ligature was thrown back of this one and stopped a free hemorrhage. The first rib was then cut off close to the scalenus anticus. The left apex could be seen to expand and contract violently. Efforts at closing

the cavity having failed, it was decided to suture the flap. Whenever the opening was closed with gauze, respiration became easier. The patient's pulse was alarming, and the flaps were sewed down with through-and-through catgut sutures. Pressure was maintained by placing gauze in the depression left by the removal of the tumor, and binding it down with a figure-of-eight bandage. The arm was bound down to the side of the chest, and the patient was put to bed in fair shape.

On the evening of the same day there was great dyspnoea with rapid pulse, but the general condition was good. On the next day the dyspnoea was distressing. The wound was dressed, and one of the stitches on the outer clavicle had become loosened, and there was an escape of some dark blood. Raising the patient to a sitting posture caused faintness. Morphine sulphate was given, the patient placed on the right side with pillows to the back, affording relief in twenty minutes. Resonant note in the apex region, and the flap moved in and out with the respiration. General condition excellent.

On the third day slight dyspnoea, relieved by morphine injection.

On the fourth day discharge of clear serum at the shoulder opening. The flap is protruding and there is a dull percussion note, indicating a pleural effusion draining out under the flap. General condition first rate.

On the eighth day all catgut sutures removed, some marginal sloughing at the angle of the wound, gaping of the sternal wound near the lower end, clavicular wound quite well healed.

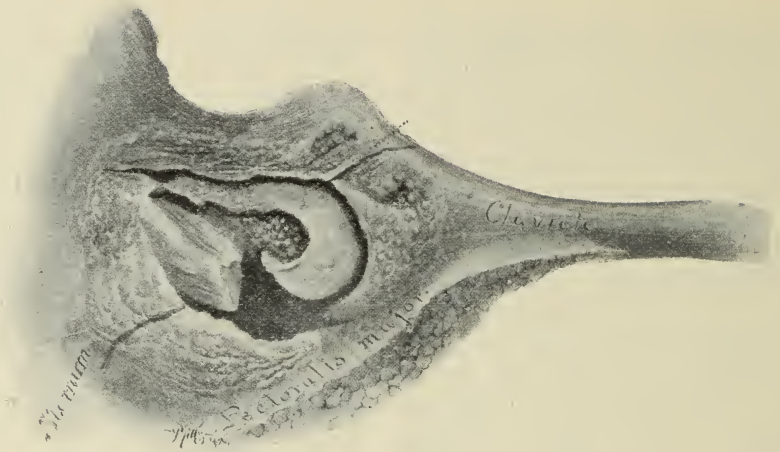


FIG. 4.—Removal of entire clavicle and adjacent sternum with tumor. Location of tumor beneath integument below sterno clavicular articulation and in the manubrium. Drawn from specimen.

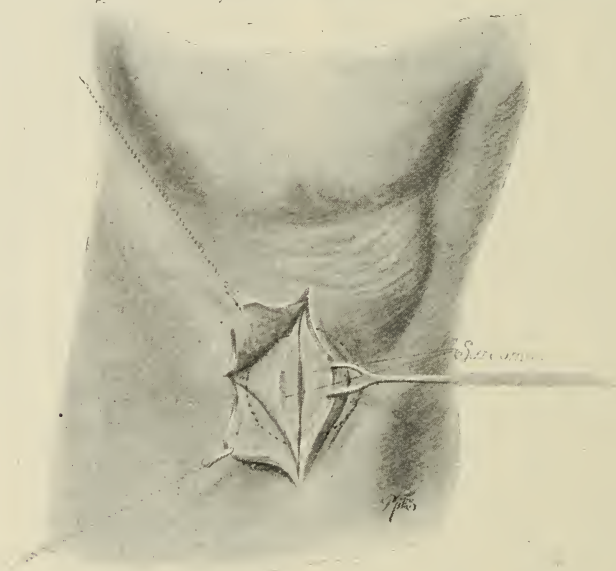


FIG. 5.—Showing locations of secondary nodule removed twenty weeks after first operation.

About an ounce of clear serous fluid was pressed from beneath the flap through the sternal opening. Dressed with bichloride gauze and pressure bandage.

On the ninth day free discharge of serum through small opening. General condition good.

On the tenth day slight discharge of serum, general condition good. Slight pain in triceps for two days, tender to palpation; some headache.

On the eleventh day free discharge of serum during the previous night. At the upper angle of wound free discharge of bloody serum and compara-

tively little from the lower region. The flap was collapsed into the thoracic fenestra, leaving a very perceptible depression on the surface. This was filled with moist gauze and a compress bandage put over all. The whole left arm noticeably enlarged, especially on the inside near the elbow. Circumference two inches larger than the other arm. No pain in the left arm. Roller bandage snugly applied to left arm. The enlargement was probably due to a traumatic phlebitis, as the pressure was not such as to cause edema.

On the twelfth day the left arm decreasing in size, wound looking well.

On the thirteenth day the left arm decreased to half its original enlargement, no pain. Occipital headache intermittent and relieved by acetanilid.

On the nineteenth day the arms equal in size, no swelling or pain.

On the twenty-first day all wound discharges had ceased.

On the twenty-seventh day Coley's erysipelas prodigiosus fluid, 2.5 minims, injected below the right scapula. Patient complained of transient pain in the right hip and lumbar region on previous day.

On the twenty-eighth day there was a rise in temperature and pulse for two hours after previous injection, coldness of extremities, loss of appetite, nervousness, great pain at the point of injection, a very positive reaction from Coley's fluid.

On the twenty-ninth day there was general improvement.

On the thirtieth day there was a second injection of Coley's fluid, 2 minims, with a less pronounced reaction.

On the thirty-second day there was a third injection of 5 minims in the right thigh, followed by coldness of feet and legs, with a rise in pulse and temperature and the usual pain at the point of injection. Patient was allowed to go home.

On the thirty-sixth day Coley's fluid was given, with a capsule of strychnine, quinine and pepper in tonic doses. The pulse was 96, temperature 100.5.

On the forty-eighth day Coley's fluid, 18 minims, was injected. Patient complained of cold feet, there was hysterical crying, and fever about an hour after these large injections; feels badly for several days thereafter.

On the fifty-fifth day eighteen minims of Coley's fluid injected with the usual result. Patient has noticed a small pea-size nodule below the patella, over the tuberosity of the tibia on the right leg, present several days.

On the fifty-seventh day the nodule on the knee no larger. Patient declares she will not take Coley's fluid any more. The arm is swollen and bluish-red below the point of last injection. Temperature and pulse have ranged close to 100 at every visit since operation.

On the 5th of October, or nine weeks after the operation, the patient returned feeling better than ever; has not menstruated; wound excellent; no discharge.

On the 10th of October the patient says she feels better than ever; nodule on the knee slightly larger; neck incision looks first rate. Patient says she lost two pounds; slight menstruation after last visit; appetite good.

On the eleventh week after operation temperature was 100.7°, pulse 110; feels better; looks all right; some increase in growth over the right knee. X-ray exposure to thoracic scar and knee nodule, five minutes each.

Twelve weeks after the operation patient menstruated normally for five days; is gaining in weight and strength; taking iodide of potash; temperature 100.3°, pulse 112.

The general condition of patient has never given any evidence of any abnormal temperature. Eighteen weeks after the operation the second menstruation began; pulse 80 to 100, temperature 99°. The growth on the knee is twice the original size, and patient consents to removal by operation.

On December 22d, twenty weeks after the primary operation, the patient entered the hospital for the second operation. An elliptical incision was made over the right patella tendon down to the bone, an area of two inches in diameter exposed. The surface was washed with bichloride. The piece removed contained a tumor about the size of the rubber tip of a lead pencil. For thorough investigation a piece of the subjacent periosteum was removed. The uterus was scraped thoroughly; was over deep and capacious. The curette showed a firm muscular base in the uterus. The knee wound was sewed subcutaneously with catgut. The wound healed without incident, and the patient's general condition has improved, with lessening pulse rate and temperature. She has had about six x-ray exposures to the knee and chest. At her last visit, on January 31st, the patient complained of great pain

in the calves. Relief from this has been coincident with the taking of large doses of iodide of potash.

The examination of the first tumor showed a large and small round cell sarcoma. A part of the tumor is a simple fibroma, so that it probably began as a fibroma and later became sarcomatous. It probably originated from the periosteum. The tumor from the integument about the knee showed a mixed cell sarcoma. An interesting fact also is that the periosteum removed from the bone beneath the tumor, and with which there was no demonstrable connection, shows a mixed cell sarcoma. In other words, while the removal was apparently radical, sarcoma cells are present in a position where it was clinically not demonstrable. The uterine scrapings showed no evidence of sarcoma.

The blood count in August was 8720 whites per cm., with no distinctive features about the other constituents. The urine was normal in quantity and composition at all times.

Figure 3 shows the patient on leaving the hospital, about a month after operation.

The interesting points about this case are: First, the undoubted diagnosis, as proven by the removal of the secondary nodule, the removal of the clavicle and manubrium enucleating the tumor and adjacent structures en masse; second, the fact that neither shoulder gets the support afforded by the strong clavicle articulation with the manubrium, as both these articulations were sacrificed in order to give the tumor a wide range; third, the lack of deformity as a result of the sacrifice of so much of arm and shoulder

bony support; fourth, probably most interesting of all is the fact that in removing the isolated nodule in the integument, the subjacent periosteum, with which there was no apparent connection whatever, showed the same character of sarcoma cells. If we are to rely on the clinical findings as emphasized by microscopic examination, the sarcomatous tissue is not entirely eradicated, and we may expect a return in the right leg, although at this

writing, nine weeks after, there is no evidence of a return anywhere.

As this goes to press the patient has a normal pulse and temperature, is increasing in weight, has a good appetite, the edema in the right leg has entirely subsided, there is no pain. The patient is taking ten grains of iodide of potash three times a day, with an x-ray exposure once a week alternately to the thoracic and leg scars.

UNUSUAL VITALITY.*

By DR. F. W. ABEKEN, St. Louis.

On February 19, A. C., a blacksmith, was found dead beside his anvil, apparently without preceding ill-health. The official obduction to determine the cause of death revealed conditions which afforded an unusual opportunity to appreciate the great resources of nature in overcoming disease without the help of man, perhaps in spite of it, and to observe the degree at which the perturbed functions of many abnormal organs may still find a balance sufficient to preserve life in comparative comfort for years.

Much detail makes tiresome reading. I shall, therefore, confine myself to the essentials of the findings unless more particulars are called for.

In the head a recent creamy exudate under the arachnoid covered in places the surface of the brain; there was much cerebro-spinal fluid.

The chest was nearly as deep as wide—an indication of the long stand-

ing of some of the conditions found. A chondrome, the size and shape of a halved hen's egg, protruded into the lung from beneath the sternal end of the fourth left rib. The lungsacks were entirely obliterated by old, tough adhesions, with the exception of one small space over the right apex, which admitted half the length of two closed fingers. The greater part of both (rather small) lungs were much engorged.

The heart was not much enlarged, though a small, hard fold was all that was left of the bicuspid, and though a pronounced arterio-sclerosis, must have been a great impediment to the circulation. Some large trunks, as the pulmonaries, were as hard as bone; the coronaries less so.

The spleen was nearly encased in a bony shell, which presented a healed crack along part of the lower edge. In some places along the outer surface this shell was one-fourth inch thick. (I had intended to preserve this also for your inspection, but through in

*Read before St. Louis Medical Society, March 5, 1905.

advertence it was recovered into the body and is now beyond reach).

The wall of the stomach contained the smaller specimen exhibited. The surface of the greater curve was matted together for several inches with the transverse colon by the larger growth.

Except an enlarged prostate and one kidney studded with several small cysts, the abdominal organs presented nothing worthy of note for the purpose in hand.

An examination of the specimens presented, made by Dr. Barton, failed to demonstrate their origin. What the history of this man's growth and decay may be is, therefore, largely matter of theory, and this again depends much on what we choose to consider cause and effect—in such cases often interchangeable terms. It may, perhaps, serve a useful purpose to compare different views on this point. A different consideration, however, prompted me to submit this report, namely: that it may offer some small encouragement to our faith in the possibility of being mistaken in our diagnoses and prognoses, even when they would seem to be absolutely beyond dispute, and in the possibility of recovery from disease, no matter how serious; and if not of recovery, of the tolerance of conditions, no matter how incompatible with life they may appear to be. Findings like these may, furthermore,

serve to suggest, even to us medical men, the advantages of a simple life; to put a mild check on our enthusiasm, if ever we should begin to get too busy with modern methods, and begin to feel too big with alleged results therefrom; to remind us that the most important lesson which modern science has taught us is, that in the prevention of disease lies our safety; and that, besides the repair of mechanical injuries, the correction of faulty habits of living constitutes the main principle of treatment for the cure of it; that much (not all, but very much) of even modern medical treatment, beyond this is of doubtful value.

After having finished the inspection of detail, and contemplating again as an entirety the mutilated remains before me, I marveled at the storms this individual must have weathered, to present such a multiplicity of pathological changes. I also marveled at a vitality which managed to eke out an existence in the face of so many difficulties, until a mere accident dealt the slight blow which proved to be the final one. This is an additional reason why I venture to call the Society's attention to this case, though each lesion by itself may not offer anything which is so very extraordinary.

The man died of pneumonia at the age of eighty-one years.

SOME OBSERVATIONS ON THE TOPOGRAPHY OF THE VERTEBRAL SPINES AND LOWER RIBS, WITH REFERENCE TO THE IDENTIFICATION OF THE INDIVIDUAL BONES.

BY VILRAY P. BLAIR, M. D., St. Louis.

I do not believe that the occasion often arises when it is of great importance to locate accurately the individual vertebra in the living subject, but still it is sometimes desirable to state at what point a spinal lesion is situated. This may be very simple, but systematic observations made upon cadavera dissected in the anatomical laboratory of the Washington University, by having students drive tacks in the supposed fifth lumbar, twelfth dorsal and seventh cervical spinous processes before reflecting the skin and then verifying the results during the subsequent dissection, have but strengthened my belief that the habit of starting at the supposed seventh cervical spine and counting down is often more picturesque than accurate.

In the following the dimensions given, unless otherwise stated, are from measurements made on special dissections of the spinal column and ribs of thirteen subjects, and their practical application verified on a number of living people, male and female.

There are a number of classic points for measurement which for practical purposes will locate a point on the spine, but which may not do it with anatomical exactitude in all cases.

The vertebral prominence is a misnomer—see standard text books—as it is the first dorsal that is usually most prominent. The seventh cervical is the one, however, that is usu-

ally first felt when the finger is passed down the hollow of the neck below the axis, but sometimes the seventh cervical spine may be short, or the sixth long, which leaves one in doubt. In thin necks the bifurcated extremity and the great range of movement of the sixth spine during flexion may help to identify it. Roughly, the seventh spine is about one inch below the level of the carotid tubercle, but this is a difficult measurement to make otherwise than with the eye. In all subjects the spine of the axis is easily identified as the first prominent bony point below the occiput, and a point two inches below the tip of this spine will fairly accurately locate the seventh cervical spine. In this, as in all other measurements, the body is supposed to be erect or lying flat on the ventral surface.

It is accepted that the upper angle of the scapula, the arm hanging at the side, is at a level between the first and second dorsal spines, the lower angle between the seventh and eighth; but, as Cunningham states, the lower angle may reach the eighth rib, which would be below the eighth spine.

The most constantly obtainable measurement, which is almost universally recognized, is that a line drawn across the highest part of the crests of the illi will cross the fourth lumbar spine. Kocher says this will cross the fifth, but this is probably the result of measuring from the external lip of the crest. In some sub-

jects all of the spinous processes can be felt with ease. In the muscular and adipose the first and twelfth dorsals will always be distinctly felt, but to identify them is a different matter. The first rib is difficult to feel in the very thin. The twelfth cannot be felt after it gets under cover of the erector spinæ, and we can never be sure, without corroborative evidence, that it is the twelfth that is felt. In fairly stout people no spines can be felt between the second and seventh cervicals. Though the general mass of the dorsal spines is evident from the fourth to the tenth, they are rather slender and incline downwards, so that it is rather the upper edge that is felt, and to distinguish between them is sometimes difficult.

Though we can locate the fourth lumbar, it, the third and fifth are in a deep hollow in the lumbar convexity anterior to the backward projecting illii under the strong lumbar aponeurosis, and can be distinctly felt only in the moderately thin. We have certain spines, as the twelfth dorsal and first lumbar, that we can feel but cannot identify, and others, as the fourth and fifth lumbar, the position of which we can identify but cannot feel. The problem is to connect these. I have made a number of measurements between different bony points to see if any of them were sufficiently constant to be of use. There are a number that are suggestive, but vary. There are others which may be relied upon.

First, as given, the distance between the axis and seventh cervical is about two inches. The line between the highest points of the external lip of the illiac crests passes near the lower

part of the fourth lumbar. Another is that the individual distances between the second, third and fourth lumbar spines are practically the same as between the eleventh and twelfth dorsal and the first and second lumbar. Finally the distance measured horizontally outward from the twelfth dorsal and first lumbar spines to the intersection of the eleventh and twelfth ribs is sufficiently constant to be of accurate use. Now, this is my excuse for my paper.

If we will mark on the skin of the patient the tips of those spines which we can feel, and which in a stout person will probably be the twelfth dorsal and first lumbar and then step off with dividers or a tape the same distances downward until the intersection of the intercostal line, we will have indicated the position of those spines which we cannot feel. Then we can count back from the fourth lumbar and with certainty indicate the twelfth dorsal.

The fifth lumbar is just below the intercostal line, is somewhat pointed and feels as one with the fourth, while the first sacral is below this and may or may not be felt. Having located the twelfth dorsal spine we will indicate on the skin the position of the last palpable rib and then measure the horizontal distance from this rib to the twelfth spine, and if we find that distance is two to two and one-half inches, then we can say positively that this is the twelfth rib; if the distance is three or over three inches, then we can say as surely that it is the eleventh and that the twelfth is absent or more likely does not protrude beyond the erector spinæ. Sometimes it may be more convenient

to estimate from the first lumbar. Then the lateral distance to the twelfth rib is three to three and a half inches, and to the eleventh rib four to four and one-half inches.

The practical point of this is that when we cannot find the twelfth rib if we draw a horizontal line from the first lumbar spine to intersect the last palpable rib and then draw a line connecting this point of intersection with the tip of the twelfth dorsal spine, this second line will be below the reflection of the pleura. There are other measurements that might be used as corroborative, but not as absolute evidence. First, the distance from the fifth lumbar spine to the tip of the coccyx is in the male seven inches, and only in those which were appreciably long did it go over this. In one it was a quarter of an inch less.

In no case was the horizontal distance from the spine to the tip of the

twelfth rib over five inches, nor the distance to the tip of the eleventh less than five inches. In twenty-five subjects the longest distance from the eleventh spine to the tip of the twelfth rib was six and three-fourths inches, while the shortest distance from the tip of the tenth spine to the tip of the eleventh rib was six and a half inches, but in most instances the measurements of the twelfth were well below and of the eleventh rib were well above this view point.

In dealing with as variable a quantity as the length of the ribs, accurate conclusions cannot be drawn from the number of instances cited, but in constant quantities, as the vertical measurement of the spine and the direction of the ribs, thirteen dissections and the observation of a number of models afford sufficient data for deductions.

UTERINE REPLACEMENT.

BY DAVIS FORSTER, M. D., St. Louis.

The great number of different operations which have been devised for the restoration of the retroverted uterus is sufficient proof that no one of them has met with the complete approval of the profession. We can then with profit take account of the different procedures suggested from time to time and find the special indication for those which seem worthy of consideration.

That there is an indication for the replacement of the retroverted uterus is accepted as the consensus of gynecological opinion. *True*, the normal uterus swings in a hammock in a

wide arc, but when it passes the point where intra-abdominal pressure carries the uterus backward instead of forward, there occurs a tension of the blood vessels and a pressure congestion, and it is not too radical to say that a retroversion of this degree becomes pathological in twenty-four hours.

Probably one of the most frequent causes of unsatisfactory results comes from lack of attention to cervical lacerations. Following labor the cervix is torn and mechanically unable to contract its muscular fibers on account of weakening of point of mus-

cular insertion, uterus subinvolved, heavy, boggy, congested and dragging against whatever support the ingenuity of the surgeon may have created, while round ligaments, tubes and even abdominal wall take part in a general subinvolution. If we have taken the precaution of repairing the cervix at the same time we restore the position of the uterus, and support the uterus with a Hodge bridge pessary until after the patient's next menstruation, we will find a profuse flow will take place. The uterus will be one half as large as at time of operation, while a general involution will have supervened.

Statistics say that 5 per cent. of retroversions are cured by the wearing of suitable pessaries, and my own experience has led me to believe that probably 10 per cent. more could be added to the cures if the cervix were repaired before the pessary was adjusted. It is not so much the size of the laceration which is worthy of note as the fact that there is an interruption of the uterine contractile force and an open door for infection.

As regards the operative methods of retaining the uterus: Fixation of the uterus by suturing solidly to the anterior abdominal wall absolutely interferes with the future functioning powers of the woman and is not to be considered where patient has any chance of childbearing.

Ventro-suspension, after the method of Kelly, by forming a peritoneal band, whose object is to hold the uterus in a normal position, is unsatisfactory. The union may be so firm as to approach a fixation, and as was my experience, the operator may find in a subsequent pregnancy the uterus

developed posteriorly at the expense of the anterior wall and during the labor the uterus rolling in an arc with each labor pain. Or, following labor, the band of peritoneum having been stretched to fit the pregnant uterus is unable to return to the normal, with involution of the uterus, and the organ drops back into retroversion. Were this band of peritoneum a normal structure it would involute post partum, and the surgical investigator, in seeking such a structure, found in the round ligament a tissue meeting all the requirements of a uterine suspensory ligament and around the round ligament has grouped the surgical effort of a number of years.

The classical demonstrations of Savage have shown that the round ligament is not a uterine support in the sense of retaining the organ from passing in a downward direction, but normally limits its movement from before backward, and it is only when the ligament is stretched and subinvolved that the uterus retroverts.

There are a number of operations bearing the names of some of our best surgeons, whose object is the intra-abdominal shortening of the round ligaments whether by folding the ligament on itself and suturing in that position, or other procedures as futile, for the reason that the shortening has been done in the thickness of the ligament near the uterus, while the attenuated end entering the abdominal wall bears all the strain of supporting the uterus, and the heavy organ often drags back to its former displacement.

The dividing line on operations involving the round ligament rests on

movability of the uterus and the desirability of inspection of the tubes and ovaries. Given a freely movable uterus and normal tubes and ovaries, and the shortening of the ligaments extra-peritoneally is indicated. But with pelvic lesions present the work can best be done through a median incision into the abdominal cavity.

Alexander was the pioneer of extra-peritoneal shortening, and his results have stood the test of time. Probably the reason that the operation has not become a more popular one is on account of the difficulty in finding the ligament after cutting down on the external ring, and this led another operator (Alexander-Adams) to split up the fascia an inch or more, thus making the technique easier but damaging the integrity of the abdominal wall. The ligament, besides its distribution to the labia majora and insertion into the spine of the pubes, gives off strands of muscular attachment to the walls of the inguinal canal of Nuck, making the drawing down of the cord a matter of a good deal of work and adding the risk of breaking it off in the canal. Therefore, the method of Kellogg was welcomed. With an incision over internal abdominal ring, denuding structures down to aponeurosis of the external oblique muscle, just inside the deep epigastric artery, with the edge of Poupart's ligament as a guide, the round ligament is found and brought through a small puncture. It is drawn out the desired length and woven through a puncture in the external oblique fascia where it is sutured in position. This proceeding, however, is not applicable if it be necessary to inspect the pelvic

contents, and Goldspohn attempted to dilate the inguinal canal for that purpose with the result that he has practically two abdominal incisions instead of one. Vineberg and others have advocated an incision between the uterus and the bladder, drawing out the round ligaments and anchoring them in front of the cervix, but the operation has not gained popularity.

The procedure of Gilliam seems nearest the solution of the matter. Make a median incision three or four inches in length; break up adhesions, and attend to lesions in pelvis; bring fundus forward. Lift up anterior surface of broad ligament on tip of finger, applied to posterior surface, and bring round ligament into view, and catch it up by suture passed around it. Peritoneum muscle and fascia on each side of wound are drawn back in grasp of volsellum, one-half inch above pubes, and a puncture made from outward into peritoneal cavity on each side and the round ligament drawn through and sutured, retaining uterus in a natural swinging position, leaving sufficient room to avoid strangulation of bowel or pressure on the bladder.

The one objection which presents, is the dragging of the round ligament, covered with peritoneum, into the tissues. It is not practical to strip the peritoneum off the ligament, as we do in Alexander's and Kellogg's operation, but it could be done.

On account of the excellence of results the trend of surgical endeavor is towards the operation of Gilliam and Kellogg. Gilliam, where it is necessary to inspect, and possibly remove, ovary or tube to break up adhesions and to attend to lesions of

contiguous organs. Kellogg, where the uterus drops back in hollow of sacrum, whether from the stress of undue exercise or following a pregnancy with laceration, subinvolution, or from the patient's having spent the period of the puerperium upon

her back in bed. The uterus movable, no lesion of adnexa, but with cervix lifted up and mechanically preventing conception, but ready to resume its normal function when restored to its normal position.

TUBERCULOSIS.

BY DR. J. W. NIEWEG, Owensville, Missouri.

Secretary McDowell District Medical Society.

The symptomatology and pathology of this disease is so well known that it is hardly worth the while to go into the details, but will suffice it to say that it is an infectious disease, caused by the bacillus tuberculosis, the lesions of which are characterized by small knots, or nodular bodies, which are termed tubercles. The old idea of this being wholly a hereditary disease has long since been relegated to the rear. We no longer believe in the doctrine of heredity, farther than that one may inherit constitutional peculiarities that predispose to diseases. For instance, one may inherit a vulnerable condition of the tissues which will weaken the power of resistance, and thus admit the invasion of the tubercular bacilli, or any other pathological microbe.

Tuberculosis is prevalent in all climates and in every race. Statistics report that fifty per cent. of all post-mortems reveal the deposit of tubercles. It may be said that the aborigines were almost free from its ravages. This will be referred to later on. Not only is man alone effected by this malady, but most all domestic animals. Among the ruminant animals, the cow and the ox being the chief

ones that are effected. It is yet a mooted question whether bovine tuberculosis is transmissible to man, and vice versa. Both sides have some of the leading authorities. Koch, I think, is on the negative side. However, great care should be used in the selection of milch cows. Where there is the least suspicion, microscopical tests should be made for the bacilli. In the years of 1892-1893, 15.1 per cent. of the cattle that were slaughtered at the Berlin abattoir, were infected with tuberculosis. In the United States the percentage is much less, only about 3 per cent.

The treatment may be limited to three remedies, or classes of remedies, oils, hypophosphites, and antiseptics (creosote and guaiacol principally). But before entering into the details of the curative treatment a few words on the preventative treatment will not be amiss. Recognizing, as we do, that we are dealing with an infectious disease, the greatest caution must be used to destroy all sources of infection. All napkins, soiled by the patient's sputum, should be immediately burned. It would probably be best to use a suitable vessel for the patient to expectorate in, having pre-

viously been thoroughly antisepticated. The habit so prevalent with some patients of spitting on the floor, walls, or any place most convenient, should be strenuously condemned by the attendant. This promiscuous spitting, in my judgment, has more to do with causing this widespread of tuberculosis that exists to-day than all other causes combined.

The sputum, containing the bacilli, when spat on the floor, dries and forms dust that is inhaled by the occupants of the room, and thus carried to the lung tissues. It may fall upon the walls or furniture of the apartment and come in contact with some suitable media for its development months afterwards, and inoculate them that breathe the air. The tubercular bacilli is capable of lying in a dormant state for months, then when coming in contact with the proper medium, to form a nidus, it will take on activity and flourish. Nuttall found that from one and one-half to four and a half billions of tubercular bacilli were thrown off every twenty-four hours in a patient with a moderately advanced tuberculosis. Recent investigation have found the bacilli in church houses, public school houses, public halls, street cars, in fact, anywhere that the patient had an opportunity to deposit their sputa.

It seems to me if we ever expect to eradicate, or even retard the rapid increase of this disease, we must devise some plan or means to either destroy or disinfect the sputa immediately after it is spat. For this I would suggest that all that are bed-ridden spit in a container, containing a strong antiseptic solution frequently re-

newed. All those that are able to go about and attend to their various vocations, carry on their body a small cup with a screw cap containing a strong antiseptic solution; renew as often as need be.

The digestive organs of all persons should be carefully looked after, as the onset of tuberculosis often dates back to a digestive disorder. Assimilation is bad. The hydrocarbons are unacted upon and pass out of the body as effete material, thus a great energy producer is lost, the white blood corpuscles or leucocytes, the scavengers of the body, suffer the consequence. Being thus weakened by the limited food supply, they are unable to cope with the invading enemy—the bacilli. The result is that the bacilli capture the fortification and soon have a strong colony of their own.

If we will revert our minds back to the physiological laboratory of our school days, we will remember that we learned that the hydrocarbons furnished the energy that propels the function of the whole human mechanism. The oils and the fats are the principal ones used of this group. They furnish energy for the development of heat, thus sparing the tissue from disintegration. The surplus above that required for compensation is stored up as a reserve force. When there is an imperfect assimilation of the fats, there is an imperfect absorption of the phosphates, which is one of the essential constituents of proper health. Dr. Thomas Bassett Keys tells us that persons keeping up their adipose tissue by eating plenty of fat never have tuberculosis.

If we will go back to the history of the aborigines of this country we will

find that while they lived on the fat of the chase, tuberculosis was almost unknown to them, while today they are affected in the same ratio that we are. Take the Esquimaux, in his native climate, where he takes enormous quantities of pure oil, unmixed, tuberculosis is comparatively unknown. But bring him to a temperate climate, where he looses the desire for fats, he is an easy prey for tuberculosis. The want of a desire for fats in these persons when they are brought to a temperate climate, is not so much attributable to the climate as to the habit they form of eating the diet of their new country.

Dr. Brackenridge taught a half a century ago that one could form habits of eating certain articles of food in exclusion of others. Basing our conclusions on Dr. Brackenridge's experiments we should endeavor to have our consumptives to form the fat habit.

The old time-honored symptom, that tuberculosis causes a disgust for fats should be reversed, for it is not the tuberculosis that causes the disgust for fats, but the disgust for fats that causes the tuberculosis.

Preceding the deposit of tubercles, there is a stage of loss of energy. If the patient would have had sufficient reserve force in the form of fat stored away to compensate for the extra strain placed on the resisting forces, the leucocytes, they would never have been overcome by the tubercular bacilli.

It is a well known fact that fats are taken up by the leucocytes freely. That the leucocytes are increased in quantity and quality by a generous supply of fats. Then, if the leuco-

cytes are the scavengers of the body, and guard the portals from the invasion of diseases, is it not reasonable to suppose that if they can destroy an invader they can also destroy the enemy after they have fortified themselves in some organ of the body? Provided they have the energy and are not outnumbered. This being the case, it seems to me that oils and fats rank pre-eminently in the treatment of tuberculosis.

In selecting remedies we should endeavor to select those that cause the least digestive disturbance and are the most easily assimilated. Cod-liver oil is the most easily assimilated of all of the oils and fats. Butter stands next. The reason that so many patients complain of the disagreeable eructations caused from taking cod-liver oil, is probably due to an improper use of the oil. It should be given in minimum doses, say from ten to thirty drops, three times a day, about one hour after meals, gradually increasing the dose up to one-half ounce or an ounce, as the tolerance of the patient demands. By giving it an hour after meals it will pass out of the stomach with the food, which is then well under way of digestion.

Dr. Keys, of the organization committee of the American Congress of Tuberculosis, states that oils and fats are an "absolute cure for consumption." He prefers the hypodermic method of administration, especially where there is a lack of assimilation per orum. He injects about an ounce of olive oil in the subcutaneous tissues once every twenty-four hours, and gives such other remedies as each individual case requires, especially the hypophosphites, the absorption of

which, he claims, are greatly facilitated by the injection of oils. To substantiate his treatment by the hypodermic method, he cites the experiments of Prof. Leube, who brought a dog to a constant weight by feeding him a certain amount of lean meat. A laparotomy was performed, and found that there was an absence of fat in the subcutaneous tissues and but mere traces in the mesentery. The wound was closed, which soon healed. The dog was fed the same amount of lean meat as before the laparotomy for the next one and one-half months, and in addition a total of 1,400 grams of butter was injected. The weight increased from 3,880 kilos to 5,360 kilos. A second laparotomy revealed an abundance of fat in the subcutaneous tissues and mesentery. The injections of butter were then discontinued and the dog kept on the same meat diet; the weight slowly diminished to 3,850 kilos. Post mortem revealed a total absence of fat.

This experiment with butter teaches us very forcibly that we should encourage our consumptives to eat freely of butter.

The hypophosphites perform a double function; their presence in the blood enables it to carry off a greater amount of effete material that is of no more use to the body and is detrimental to healthy cell metamorphoses. It stimulates assimilation, thus enabling the system to take on a greater supply of force with which to overcome the consumption caused by the tubercular bacilli.

The administration of antiseptics is of doubtful efficacy. It seems plausible that an antiseptic that will de-

stroy germ life will also destroy cell life. The same is true of inhalations. I have heretofore given creosote and guaiacol with marked improvement, which was probably due to the fact that these preparations are principally eliminated through the mucous membrane of the organs of respiration, upon which they exert a favorable influence, especially on the catarrhœal condition that usually accompanies tuberculosis. It acts by destroying the products that serve as a nidus for the development of the bacilli. Small doses, diluted, act favorably on gastric irritation.

The climatological cure for consumption is rapidly passing into oblivion. Only a few weeks ago, at the meeting of the International Congress of Tuberculosis in St. Louis, Dr. Annie Lyle, of San Francisco, California, spoke feelingly of the afflux of consumptives to that resort, causing the natives to become afraid to remain there. The statistics of 1900 show that California has a greater percentage of death rates from tuberculosis than any other state in the union. These startling facts cause us to conclude that the best place for our tubercular patients is at home, taking plenty of moderate exercise in the open air.

Many so-called "specifics" have sprung into existence, but have passed away with decadence as mysteriously as they sprang up.

Symptoms and complications often arise that must be treated according to their indications, but in no case should symptoms be treated at the expense of the stomach.

TREATMENT OF CERTAIN EXTERNAL DISEASES OF THE EYE BY X-RAYS.

BY JOHN GREEN, JR., M. D., of St. Louis, Missouri.

In the following paper I propose to give a brief resume of radiotherapy as applied to certain external diseases of the eye and its appendages, in the hope that your interest may be awakened in a branch of ophthalmic therapeutics which is still in its infancy, but which, if results already attained be any criterion is destined to prove a valuable adjuvant to time-honored methods of treatment. The number of cases of ocular disease submitted to the rays is still too small to admit of any positive dicta relative to the precise limitations of the treatment and the diseases to which it is applicable. Nevertheless, results in certain classes of cases have been so uniformly excellent as to leave little room for doubt in the mind of an unprejudiced observer that a therapeutic method of superior merit has been added to the ophthalmic armamentarium.

The brilliant results obtained by dermatologists in the radiotherapy of cutaneous carcinoma led to the utilization of the rays in the treatment of this disease as it manifests itself in the eyelid. As you are doubtless aware, these skin cancers of the eyelid have heretofore proved very difficult to deal with. Treatment consisted either in the application of caustics—a method which usually proved of little value—or in the removal of the growth by operation. These methods, even when successful, had the disadvantage of creating thick contracted cicatrices which grossly deformed the lid margin. Plastic operation, while lessening the deform-

ity, failed to yield a result cosmetically perfect. Furthermore, recurrence of the disease was to be expected in a certain proportion of cases. One of the first to approach the question from the standpoint of the ophthalmic surgeon was Sweet¹ who reported three cases of epithelioma of the eyelid treated by radiotherapy. Of these two were entirely cured; in the third, the early improvement was not maintained. The failure in the latter case was ascribed to the fact that the rays were prevented from exerting their maximum effect on the orbital portion of the tumor, the patient refusing to permit the removal of the overlying atrophic globe. In a more recent paper Sweet² states that he has treated twenty cases of palpebral epitheliomata and has effected a cure in eighteen. One of the failures is referred to above. In the other—a case of rodent ulcer of the side of the head—the rays acted well for a time, but later the disease spread to the external canthus. In all the successful cases the diseased area was covered in by pliable, normal-appearing skin. One of the effects of the treatment is the notable relief of pain which Sweet ascribes to trophic change, possibly secondary to changes of degeneration in the finer nerve filaments. The cure was effected with a minimum of distortion of the lid margin. Recurrences were infrequent and were readily controlled by a secondary application of the rays. Similar results have been obtained by Pusey³, Mayou⁴ and others. The attitude of all work-

ers in this field is well expressed by Sweet who states that "it is no longer right to resort to plastic operations in cases of epithelioma and rodent ulcer of the eyelids."

The technique of the application does not differ from that used by dermatologists: Thin sheets of lead with an opening cut to correspond to the diseased area, are used to protect the uninvolved portion of the face. The patient is placed from six to ten inches from a low vacuum tube. The sittings, which should be of five to ten minutes duration, will vary in frequency with the severity of the case. "Burns" are to be avoided by refraining from too long and too frequent exposures and by keeping the patient at a sufficient distance from the tube. With a view to preventing recurrence, it is recommended that sittings be continued from time to time after healing has taken place.

The application of the x-ray to a disease exclusively ocular was first carried out by Mayou⁵, who reported the cure by this method of a case of trachoma. He was led to experiment with radiotherapy in this disease on the following considerations: The efficacy of the treatment by caustics is due partly to the production of a leucocytosis with subsequent cicatrization of the trachomatous nodules, partly to the mechanical removal of the diseased tissues, and the destruction of the specific causative agent. Caustics possess the disadvantages of partially destroying the normal palpebral epithelium, thus increasing the tendency to scar formation. The x-ray is an agent capable of producing a more or less prolonged leucocytosis from the mildest to the in-

tensest grade without (except under ill-regulated exposures) seriously impairing the integrity of normal epithelium. Theoretically, therefore, it should exercise a most favorable effect on trachomatous tissue.

Judging from the surprisingly rapid and complete cure in this and subsequent cases it must fairly be admitted that Mayou's theoretical contentions have been borne out by the results of treatment. The technique of the application is described as follows: The upper lid being everted, the lower is pushed up so as to cover the cornea; in pannus the cornea is left exposed; the patient is seated nine inches from the anode of a moderately soft tube and is given daily sittings for four to six days, followed by a week's rest. Should there be no reaction the sittings are continued twice a week until the appearance of photophobia, which indicates the beginning reaction. Shortly after the trachoma bodies begin to disappear. Sittings are continued once or twice a week until the masses are no longer visible. A certain amount of injection of the conjunctiva persists for several weeks after cessation of treatment and it is not possible to tell whether all masses have disappeared until this has subsided. Pannus disappears rapidly and old opacities and corneal scars clear up surprisingly.

The cases best suited for treatment are those of the ordinary chronic type. Acute cases exhibiting diffuse infiltrations with much photophobia require very careful management and are not so favorably influenced. In the end the conjunctiva is left free from scars and uncontracted. The following positive advantages are claimed (1), the

cure is effected with a minimum deformity of the lid; (2), the treatment is painless; (3), pannus clears with unexampled rapidity.

Mayou's results have been confirmed by a number of observers, notably Stephenson and Walsh.⁶ In four cases of severe bilateral trachoma these authors subjected one eye only to the x-ray, the fellow (or "control" eye) being either untreated or treated by ordinary methods. Two cases were absolutely cured, the other two showed marked improvement, while in all the "control eyes" remained *in statu quo*. In the same paper the authors report the complete cure of a severe case of trachoma by the application of a mild high frequency brush by means of a vulcanite electrode. This interesting result led them to advance the suggestion "that the common agency may be a brush discharge visible from a high frequency electrode, but invisible from the focus tube." The two methods have been combined by Geyser,⁷ who reports eighteen cases successfully treated. After six to eight exposures to the x-ray the treatment is continued by the direct application to the conjunctiva of a high frequency vacuum electrode, for from one to three weeks.

A case of tuberculosis of the conjunctiva in which the clinical diagnosis was substantiated by microscopic examination, the finding of the tubercle bacillus and successful animal inoculation was subjected to the x-rays by Stephenson.⁸ The case was practically well at the end of six weeks, no trace of disease remaining two months later.

It is noteworthy that the cure was effected without the slightest deformation of the lid margin.

Any practitioner who has attempted to treat a case of vernal conjunctivitis has probably reached the end of his therapeutic resources long before he has made a permanent impression on this intractable disease. The success which attended the application of x-rays in a case of Allport's⁹ would seem to offer grounds for the hope that this method, if not productive of a permanent cure, would at least hold the disease in check during the annual hot weather exacerbations. Disappearance of the granulations from the lids and corneal margins with the complete relief of subjective discomfort—lachrymation, burning and itching—were secured in a case of seven years' standing.

Harper¹⁰ reports the entire disappearance under x-ray treatment of three dark spots of pigment which persisted after the operative removal of a melano-sarcoma of the sclera. Pusey applied the rays in a case of deep carcinoma of the orbit and in glioma recurring after operation for glioma of the retina. In both there was evident retardation of the malignant process.

A consideration of recent radiotherapy of the eye would be incomplete without reference to a case of sarcoma of the orbit recently reported by Fox.¹¹ The tumor was attached to the bone in the naso-orbital region and had caused a marked exophthalmus. The case was deemed inoperable and x-ray treatment instituted. Fifty-five exposures with a high vacuum tube resulted in the complete disappearance of the visible and palpable tumor and the restoration of facial symmetry.

It is a remarkable and interesting

fact that the only deleterious effect of x-radiance upon the eye has been the production of a mild conjunctivitis. Taking into consideration the susceptibility to x-rays of the most highly differentiated epithelial elements, Pusey suggested the possibility of atrophy of the rods and cones of the retina from x-ray exposure. His fear has proved groundless.

All observers agree that the cellular elements of a tissue are primarily influenced by x-rays. The epithelial cells are affected in the highest degree, next the blood vessels, and in lesser degree the other tissues. The first effect is one of stimulation, which is followed by disintegration of the cell structures. Certain proliferative changes then take place in the inner coats of the blood vessels. Later, an inflammatory reaction appears, with pronounced leucocytosis. Finally, the leucocytes complete the destruction of the degenerated cells. The reaction of pathologic tissue is similar, except that the cells of these tissues being, as Pusey puts it, "relatively unstable," are more susceptible to the profound nutritional disturbance produced by x-radiance, and hence are disintegrated by a degree of radiance insufficient to impair the vitality of normal tissue. I have been unable to find any account of histological examination of trachomatous tissue during the period of x-ray treatment. It is probably fair to assume that the tissue changes are not widely different from

those which take place in the skin. In the light of our present knowledge of the radiotherapy of ocular disease, the following conclusions would seem to be justified:

1. In epithelioma and rodent ulcer of the eyelid, radiotherapy surpasses all other methods of treatment.

2. In selected cases of trachoma, radiotherapy offers the possibility of rapid cure. The treatment is practically painless, and the cure is effected with a minimum of deformity to the lid.

3. The method is worthy of trial in cases of vernal conjunctivitis tuberculosis of the conjunctiva, orbital sarcoma and carcinoma, and in recurrence of glioma after operation for glioma of the retina.

4. The treatment is without danger to the function of sight.

225 Vanol Building.

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NEXT ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION, EXCELSIOR SPRINGS, MAY 16, 17, 18, 1905.

EDITORIAL.

IMPORTANT MEDICAL MEETINGS.

During the month of April Dr. J. N. McCormack, chairman of the committee on organization of the American Medical Association, will visit Missouri at the request of the judicial council of the State Medical Association,

who have arranged to have meetings in the various districts of the state. Every physician, whether a member of a county society or not, is cordially invited to attend Dr. McCormack's lecture. Dr. McCormack has been chairman of the committee on organization of the American

Medical Association from the inception of this work. He has visited almost every state in the Union in the last four years in the interests of the organization, and has made a study of professional methods and professional needs. The following itinerary has been arranged:

DeSoto, Saturday, April 1st, at 2 P. M.

Pacific, Monday, April 3d, at 2 P. M.
Jefferson City, Tuesday, April 4th, at 2 P. M.

Boonville, Wednesday, April 5th, at 1 P. M.

Sedalia, Wednesday, April 5th, at 8 P. M.

Springfield, Thursday, April 6th, at 2 P. M.

Joplin, Friday, April 7th, at 2 P. M.
Nevada, Saturday, April 8th, at 2 P. M.

Butler, Monday, April 10th at 2 P. M.

Plattsburg, Tuesday, April 11th, at 2 P. M.

Savannah, Wednesday, April 12th, at 2 P. M.

Chillicothe, Thursday, April 13th, at 2 P. M.

Moberly, Friday, April 14th, at 1 P. M.

Macon, Friday April 14th, at 8 P. M.
Hannibal, Saturday, April 15th, at 2 P. M.

Bowling Green, Monday, April 17th, at 2 P. M.

The importance of these meetings cannot be overestimated, and it is to be hoped they will be largely attended.

ANNUAL MEETING.

The annual meeting of the State Medical Association will be held at

Excelsior Springs, May 16, 17, 18, 1905. Tuesday, May 16th, will be devoted to meetings of the officers, including the judicial council and house of delegates. Should any meeting of the legislative body of the association be required on the 17th or 18th, it will be held in advance of the morning session of the association, so that all members may have the opportunity of taking part or listening to the scientific program.

The second and third days will be devoted to scientific work.

On the evening of the first day of the scientific program the arrangements committee expects to give a luncheon, following the president's address.

The number of contributions to the program will be limited, and a special feature made of the discussions.

Each essayist will forward to the chairman of the committee on scientific work, one month prior to the meeting, an abstract of his paper, a copy of which will be sent to those members invited to take part in the discussion.

All papers to be read before the meeting are to be in the hands of the committee not later than May 1st, so that in event of the absence of the writer the paper may be read by title.

It is believed the next meeting will be the largest in point of attendance in the history of the State Medical Association.

THE DISTRICT SOCIETY.

At a special meeting of the Judicial Council, held in St. Louis, March 1st, it was decided that no district society would be in affiliation with the Missouri State Medical Association after

May 16, 1905. When the Association was reorganized it was decided to (temporarily) admit district societies, though there was no provision in the Constitution authorizing such action. Many members of the Judicial Council believed a year or two would be required in which to organize county societies, and in order that all regular physicians might have the opportunity of becoming members of the State Association the district society was temporarily admitted. From the above date no district society will be in affiliation with the State Medical Association. It is generally believed the action of the Judicial Council will meet with the approval of all members.

THE LATEST ADDITION.

The Barton County Medical Society is the latest addition to the list of affiliated county societies. Dr. G. D. Allee of Lamar, Missouri, is president, and Dr. J. L. McComb of Kennoma, Missouri, is secretary-treasurer. Gradually the entire State is becoming organized, and within the next sixty days there is reason to believe the membership will be increased to 2,000.

THE ANNUAL DUES.

Although the Constitution provides for the payment of annual dues January 1st of each year, there are several county societies in affiliation with the State Medical Association who have not yet forwarded dues for 1905-1906. Those societies on the delinquent list are earnestly requested to send in their contributions without delay.

The North Missouri Medical Association meets at Trenton, Missouri, June 15th and 16th. An interesting program has been prepared and a large attendance is expected.

The Southeast Missouri Medical Association meets in Charleston the first Tuesday in May. A number of the best known members of the Association are to read papers. The attendance promises to be good.

NEW MEMBERS RECEIVED.

C. O. Lewis, Fayette.
 W. H. Addington, Spickards.
 F. H. Weiss, Kansas City.
 R. E. Castelaw, Kansas City.
 C. G. Pinckard, Kansas City.
 W. C. West, Kansas City.
 Noah Adams, Kansas City.
 George B. Norberg, Kansas City.
 John W. Kepner, Kansas City.
 J. C. Martin, Kansas City.
 H. H. Lane, Kansas City.
 C. W. Pickerill, Kansas City.
 J. W. Kimbertin, Kansas City.
 J. W. Beil, Kansas City.
 George Gellhorn, St. Louis.
 R. C. Forsythe, St. Louis.
 R. H. Kuhman, St. Louis.
 H. Muetze, St. Louis.
 R. W. Mills, St. Louis.
 T. R. Ayers, St. Louis.
 F. G. A. Bardenheier, St. Louis.
 R. P. Scholtz, St. Louis.
 Charles Tooker, St. Louis.
 W. U. Kennedy, St. Louis.
 Ed. Quinn, Brashear.
 J. W. Martin, Kirksville.
 E. A. Grim, Kirksville.
 E. C. Grim, Kirksville.
 M. R. Trumbower, Monett.
 N. F. Kelley, Kennett.

W. B. Finney, Kennett.
 G. L. Johnson, Kennett.
 Thomas J. Rigdon, Kennett.
 Paul Bauldwin.
 Van H. Bond, Cotton Plant.
 Thomas H. Egbert, Kennett.
 A. B. Mobley, Kennett.
 J. F. Cowell.
 B. D. Crowe, Caruthersville.
 M. H. Huggens, Caruthersville.
 J. G. Luten, Caruthersville.
 G. W. Phitts, Caruthersville.
 H. F. Byars, Caruthersville.
 A. R. Conrad, Caruthersville.
 M. B. Hendricks, Caruthersville.
 Charles Martin, Caruthersville.
 Paul Tipton, Cooter.
 R. C. Wichterich, Cape Girardeau.
 W. K. Statler, Oak Ridge.
 R. F. Henderson, Jackson.
 Elmo Porterfield, Cape Girardeau.
 A. E. Hart, Dutch Town.
 E. E. Higdon, Allenville.
 J. J. Hodges, Granby.
 G. W. Harrison, Newtonia.
 W. D. Brown, Newtonia.
 J. B. Hancock, Newtonia.
 E. C. Haller, Harrisburg.
 V. Q. Bonham, New Franklin.
 U. B. Chapman, Diamond.
 J. M. Bridges, Tipton Ford.
 J. W. Lamson, Neosho.
 Paul C. Yates, Neosho.
 A. Maas, Neosho.
 W. A. Cravens, Granby.
 H. L. Porter, Seneca.
 J. W. Langley, Granby.
 S. A. Russell, Stella.
 C. M. Roseberry, Neosho.
 H. Bowers, Neosho.
 A. M. Mixer, Neosho.
 C. T. Cleave, Neosho.
 H. F. Foster, Neosho.
 R. L. Willis, Neosho.
 William Campbell, Seneca.

Maurice Andre, St. Genevieve.
 C. J. Hertie, St. Genevieve.
 F. E. Hinch, St. Genevieve.
 R. W. Lanning, St. Genevieve.
 G. M. Rutledge, St. Genevieve.
 A. G. Meyer, St. Genevieve.
 C. Moore, St. Mary.
 L. D. Burgess, St. Mary.
 H. J. Morganstein, Weingarten.
 H. J. Counts, Ulam.
 Robert C. Forsythe, Kirkwood.
 S. C. Slaughter, Fredericktown.
 W. H. Baron, Mine La Motte.
 R. G. Epperly, Prairie Hill.
 D. V. Wale, Carthage.
 M. B. Harrutum, Joplin.
 P. L. Freeland, Joplin.
 C. E. McBride, Webb City.
 W. H. Rogers, Ashburg.
 P. E. Coil, Mexico.
 Herbert Lanier, Martinsburg.
 Charles Baker, Santa Fe.
 W. E. Blankenship, Madison.
 F. H. Carger, Madison.
 W. S. Winters, Asherville.
 Eli Wilson, Leora.
 B. J. Cline, Ardeola.
 F. W. Gale, Marquand.
 T. M. Hudson, Perryville.
 G. N. Blaylock, Silver Lake.
 C. B. Bowman, Longtown.
 J. P. Clark, Perryville.
 T. F. Estel, Atlenberg.
 K. C. Garner, Crosstown.
 W. H. Hatcher, Perryville.
 L. R. Manning, Brewer.
 D. F. Morton, Perryville.
 J. W. Russell, Longtown.
 F. M. Vessells, Perryville.
 John S. Montgomery, Milan.
 C. C. Cooper, Rolla.
 J. W. Johnson, Hayti.
 P. P. Ferguson, Steele.
 Andrew F. Bugg, Pascola.

NEWS ITEMS.

Object Lesson in the Mortality in Japanese Army.—In nine months there have been but forty deaths from disease in the immense army commanded by General Oku, a record that is believed to be unequaled in the world's warfare. There have been treated since May 6, when the army landed, 24,642 cases of disease, but only two score of deaths have resulted. There were only 193 cases of typhoid fever, 342 of dysentery, and of beri beri 5070. The casualties of this army from May 6 to December 19 were: Killed—Officers, 210; men, 4917. Wounded—Officers, 743; men, 20,337. Missing—Officers, 4; men, 402. The percentages of the other Japanese armies are believed to be about the same.—*American Medicine.*

The Walter Reed Memorial.—The following letter from Dr. Daniel E. Gilman has been published by *Science*: At a meeting of the association held in Washington a committee was appointed, of which I was made chairman, to take such measure as might be wise for securing a permanent memorial of Major Walter Reed, U. S. A., in recognition of his important services to humanity. Acting under this authority, it was at length found expedient, after several preliminary meetings, to form an incorporation in the city of Washington to hold such funds as might be contributed. This incorporation is now endeavoring to raise the sum of \$25,000, of which the income may be paid to Mrs. Reed and the principal may be devoted to a permanent memorial of Dr. Reed.

More than \$13,000 has been subscribed already, a large part of this amount coming from the medical profession. This is all in addition to the action of congress, which has given, on the representations of your committee, an annual pension to Mrs. Reed. The effort is now making to secure the additional sum of \$12,000, and the co-operation of all members of the American Association for the Advancement of Science is urgently desired.—*American Medicine.*

A bill to appropriate \$300,000 to the free hospital for poor consumptives at White Haven, Pennsylvania, has been introduced into the state legislature of Pennsylvania. Of this sum \$100,000 is for the maintenance of the sanatorium at White Haven; \$100,000 to assist in the erection and equipment of new buildings to increase the capacity to as near 300 beds as possible, and \$100,000 to assist in purchasing a site at a suitable location and in erecting buildings for the care of more advanced cases of tuberculosis than can be accommodated at White Haven.

Rupture of the Rectus Abdominalis in Cavalrymen.—In the *Archives de Medicine et de Pharmacie Militaires*, August, 1904, and September, 1904, M. Lenez states that rupture of the rectus muscle of the abdomen has attracted little attention heretofore, and deserves some study. It occurs almost exclusively among recruits, under the following conditions: A cavalryman is mounting without the aid of his

stirrups; while springing to the saddle he experiences a sharp pain in the hypogastric region, resembling a knife stab; he cannot repeat the attempt, nor can he move even; respiration is suspended for an instant, or is entirely costal; he is doubled up, his face is pale, he has a sensation of tearing and weakness in the lower abdomen to the lumbar region. General symptoms.

Dr. Cushny Goes to England.—Dr. Arthur R. Cushny, for the past twelve years professor of pharmacology in the department of medicine and surgery of the University of Michigan, has been made professor of pharmacology in the medical department of the University College, London. Dr. Cushny graduated in arts and in medicine in the University of Aberdeen, and then took up the special study of pharmacology with Prof. Schmiedeberg at Strassburg, in whose laboratory he has become private docent. When Prof. Abel left the University of Michigan in 1893 and went to Johns Hopkins, Dr. Cushny, whose research work had already attracted attention on account of its high degree of excellence, was called to Michigan to fill the chair of pharmacology. During his twelve years of residence in this country he has made many valuable original contributions to the science of his special subject. Some of his most important papers have been those bearing on the action of digitalis, caffeine, spartein, saline cathartics and the atropin group. He has recently contributed to the *English Journal of Physiology* a series of researches on the physiology of, and the effect of medicinal agents on the ac-

tion of the kidneys. He has made valuable contributions on the physiology of the mammalian heart and the interpretation of pulse tracings. His text-book on pharmacology received immediate recognition, and has already passed through several editions. In his departure from this country America loses and England gains one of the most thorough scientific investigators in medical science.—*Journal A. M. A.*; *Southern Med. and Surg.*

Comparison of the Medical Departments of the American and Japanese Armies.—The *Baltimore Sun* remarks editorially: "We have here in the United States the men of training, skill, courage and professional zeal to form an army medical corps unsurpassed in the world, but we lack the intelligence to understand that to be efficient from first to last in war it must be organized, trained and maintained in time of peace. That is in reality the only lesson with regard to medical service that we have to learn from Japan. When we have taken it to heart we can duplicate her finest achievements and probably surpass them."

Gymnastics and Athletics, with Special Reference to Football.—Colonel Valery Haward, in an article under this title, which appears in the March number of the *Journal of the Association of Military Surgeons of the United States*, sums up and draws conclusions regarding football as follows: Football, as developed in this country, is an especially American game, appealing strongly to our love of the strenuous and combative arts, and therefore difficult to control and keep

within safe and proper limits. Stringent rules should govern it. All trickery, unfairness and deception must be eliminated. Unless it be kept clean, sportsmanlike and gentlemanly it has no *raison d'être*.

As regards mere physical development, better results can be obtained by graded gymnastics and less strenuous games. It is more or less dangerous to the body, and in order to reduce liability to injuries, and the possibility of disability in after life, certain important conditions must be observed. No young man should play it who is under eighteen, and not declared physically sound after careful medical examination. He should be well developed in muscle and chest capacity for his age and height. Careful training is absolutely necessary—that is to say, an intelligent grading of work without sudden violence, so as to develop the highest degree of efficiency and endurance without harm to any of the organs. It is by overtraining that the heart, lungs or kidneys may be permanently injured, and that are laid the seeds of future evil. The well-trained player overcomes his enemy without hurt to him or to himself; it is the beginner or blundering amateur who does most of the mischief.

Since football is positively detrimental to studies, no one should be allowed on the team who stands so low in his class that his chances of graduation would be jeopardized.

Football is mostly commendable for certain traits of mind and character which it brings forth, and which render it a valuable game for military and naval academies.

That football can, and should, be

modified by the elimination of its objectionable features, and thus made entirely acceptable to all educational institutions, is admitted by many, if not most, of its best friends. There should be less mass-play, with its heaps of writhing bodies; more kicking and running; more opportunities for strategy and tactics. An open game would also be much more interesting to the public. The player should not be obliged to exhibit himself in the arena, carrying fourteen pounds of armour and padding, a deformed and grotesque object. Is it possible to picture to our minds the athletes of the Olympic games in such guise?

In all inter-collegiate games, modifications or improvements, to be effective, must be participated in and binding on all the leading institutions. Such concerted action is always slow and difficult, but certainly not impossible. College faculties, judging from their utterances, seem to regret the very great exaggeration given to athletics of recent years, especially the undue importance assumed by football, but do not appear to be taking any decisive action to correct the evil. Upon them devolves the duty of vigorous initiative.

To be really useful as a means to education, a game should be open to a majority of the students; but so much is exacted from a football player, in weight, strength and vital capacity, that few come up to the standard, and a majority are debarred.

The rules should be so modified as to permit the admission of youths who would make up in speed, agility and adroitness what they lack in weight of flesh. If football is good

for the few, it must be good for the many, and should be brought to the level of all able-bodied students of normal physical development. This is especially true of West Point and Annapolis. In these institutions football should be recognized as one of the chief means of physical culture. Instead of one team in each academy, there should be three or four, each composed of members selected from all the classes, so that the teams may be about evenly matched. The playing of team against team in the same institution would bring out much of the stimulus and excitement now only aroused by games with other institutions.

Were this system adopted in colleges there would not be the same eagerness for contests with outside teams, the danger of lapsing into professionalism would be diminished and much less time wasted.

Some of the defects of the present system are well exposed by the editor of the *Medical News*: "Instead of carefully training each and every student physiologically and systematically, so that his bodily defects shall be corrected, and so that his body shall be a supple, strong and beautiful servant of the mind, there is a concentration of all training upon one man out of a hundred for a special and not by any means beautiful purpose; ninety-nine let one do their exercising (excepting the vocal part) for them, and we have the noteworthy result—vicarious athletics, or gymnastics by proxy."

Since football is, to a great extent, a military game, and, therefore, well adapted to cadets and midshipmen, it does not follow that it is suited to sol-

diers and sailors. They have not received the thorough training which is indispensable, and, at their age, such training is hard and often impossible. Furthermore, they are less capable of the self-control and subordination absolutely necessary for a clean game. The result is that when soldiers play football the casualties are likely to be many and serious; thus, in his sanitary report for November, 1903, the surgeon of Fort Hamilton states that "twenty-one injuries incident to football occurred in the command between October 9th and November 30th, embracing dislocations of the hip, dislocation of the shoulder, fracture of the collar bone, severe sprains and contusions of shoulders, knees, wrists, ankles and muscles." Many other post surgeons have had the same experience. As a general rule, football is not for soldiers nor for anyone who does not receive the necessary training before the end of his twenty-first year.—*Journal of the Association of Military Surgeons.*

The Russian Army Medical Service in Manchuria.—In an interesting article in the *Outlook*, George Kennan presents a series of quotations from observers of the situation in Manchuria, all of which are agreed as to the disorganization existing there. Mr. Demchinski, a prominent Russian publicist, remarks concerning a so-called "sanitary train without special appliances," which he saw in Manchuria, that it had been en route with 868 sick and wounded men for three days, during which time the sick had had nothing to eat, no place for cooking being provided. From that time the train was still eighteen hours in

reaching its destination, where it arrived at midnight when it was impossible to unload or feed the sick. In order to accommodate the 868 men they had to be put on "nares" or platforms in two tiers, one above the other. There was not a single medical man, attendant or nurse on the train. When the patients from the upper berths rolled down upon those in the lower, as frequently occurred, there was no one to put them back in their places. In two of the cars there were forty-eight typhoid fever patients, and when the conductor asked the authorities for at least one attendant to care for them, because of their tossing about in delirium and often trying to throw themselves out of the train when in motion, the request was denied. The statements of still other observers report that the corruption in connection with the funds for the care of the sick and wounded is indescribable, that the handling of the wounded is managed with shocking carelessness and haste, and that the means of identification are deficient and defective in the extreme.—*Journal of the Association of Military Surgeons.*

Danger in X-Ray Exposure.—A warning against the haphazard and indiscriminate use of the x-ray by inexperienced operators seems particularly opportune at this time, as the lay press of San Francisco has so recently published the case of the unfortunate Mrs. Fleischman - Aschheim, whose arm was amputated, a few weeks ago, for an epitheliomatous degeneration caused by repeated exposure to these rays. Dr. P. M. Jones, the pioneer of this work on the Pacific Coast,

suffered from x-ray burn of the hand as early as 1896; though 1900 he gave up this work entirely, even at the present writing trophic and degenerative changes are going on in that important member of his anatomy. Other men have been forced to give up the use of this valuable agent on account of burns, or, as in one case, on account of neurasthenic symptoms such as have been early described by French authors. The literature germane to the subject describes the oblique action and dangers of the x-ray most comprehensively. But it seems that the general rank and file of the profession have not had sufficient access to these publications or taken cognizance of them.

The operator should be thoroughly protected by a lead screen. The use of the operator's hand to test the condition of the tube is extremely dangerous and accounts for many burns. Fluoroscopic examinations expose the operator to the action of a quantity of the rays; hence, if frequently resorted to, it becomes a decidedly dangerous method. Changes in the skin of patients treated by the x-ray takes place, in many instances, even years after the exposure. These changes resemble closely the various scleroderma-like conditions of the skin. For this reason trivial conditions of the face, hands, etc., should not be treated with the x-ray as the sequelæ may be more serious and disfiguring than the original trouble.—*California State Journal of Medicine.*

On Auxiliaries of Climatotherapy.—I. Benney Yeo, in the *Practitioner* for December, 1904, refers to a previous

statement by him that "care without climate is better than climate without care," and that "it is possible to make bad use of a good climate and good use of a bad one." In other words, something more than unaided change of climate is necessary in the treatment of tuberculosis, and hence arose the method of treating this disease in sanatoria.

The care in such institutions means strict attention to the smallest details of a patient's life. This rigid care

which is exercised over tuberculosis patients ought also to be exerted over patients who are sent to sanatoria for treatment of chronic gastric catarrh, early hepatic cirrhosis, diabetes, albuminuria, chronic rheumatism, chronic paludism, and many other forms of chronic disease. With suitable regulation of diet, baths, exercise and amusements many troublesome cases that are now neglected might be cured.—*New York Medical Journal*.

COUNTY SOCIETY NOTES.

THE ST. LOUIS MEDICAL SOCIETY.

Dr. F. L. Henderson, President.
Dr. J. C. Morfit, Vice-President.
Dr. T. A. Hopkins, Secretary.
Dr. R. M. King, Treasurer.

REPORT OF THE ST. LOUIS MEDICAL SOCIETY, FEBRUARY 18 TO MARCH 11, 1905.

The society convenes in the St. Louis Medical Library Association Building, at No. 3525 Pine street. Meetings are held every Saturday night, and during the period from February 18 to March 11 four meetings have been held. The following interesting demonstrations and papers have been presented for consideration.

Dr. Jesse S. Meyers presented a paper and demonstration on an "Improved Method of Determining the Size and Position of the Stomach with the Aid of the X-Ray." To demonstrate how difficult it is to obtain satisfactory photographs of the stomach he presented a number of cuts made after the best methods commonly in

vogue. All of the cuts presented a more or less indefinite outline, and the best were only fairly satisfactory. Dr. Meyers contrived an instrument consisting of an ordinary stomach tube, into which a flexible wire spiral was inserted, and a small copper wire so fastened to the lower end of the tube as to cause it, when pulled, to curve in conformity with the greater curvature of the stomach and to allow the end to closely approach the pylorus. By using this instrument and the x-ray he obtained a series of photographs of normal and abnormal stomach positions which show a decided improvement over those taken by methods formerly in use. The paper was of a decided scientific nature, and was discussed by Dr. F. A. Glasgow.

Dr. Jno. C. Morfit presented a specimen of sarcoma and patient, and Dr. F. Fahlen presented a paper on "Remarks on Pathology of Sarcoma." The case was operated on by Dr. Morfit over two years ago. The entire left clavicle, the manubrium and a portion of the first rib were removed and

the specimens demonstrated. The patient is now healthy and strong, and but very little deformity is to be noted. Since the first operation a small tumor resembling a sarcoma appeared near the left knee and was removed. Following this, a threatened return of tumor at site of first sarcoma was prevented and stopped by injections of Coley's fluid and by the x-ray. The Coley fluid was used in ascending doses of from 2 m. to 18 m., given each alternate day, and injected at a point distant to the original tumor. A distinct reaction occurred after each injection, seemingly no greater after the large dose than the small one, after the patient was gradually accustomed to the treatment. Dr. Morfit believes that the patient was very materially benefited by the injections of Coley's fluid, and several members, in discussing the paper, reported cases in which they obtained good results. Dr. Grindon, in his discussion, reported a case in which a diagnosis of "carcinoma in the abdomen" was made some twelve years ago, and that injections of Coley's fluid caused the tumor to disappear, and the patient is living and in good health. Dr. Fahlen stated that a pathological examination of the sarcoma specimens revealed many spindle cells, and also stated that sarcoma of the bone usually first attacks the epiphyseal ends. Paper was also discussed by Drs. Glasgow, Clopton and Blair.

Dr. A. N. Ravold demonstrated a new test for albuminuria with two specimens. He found that the specific gravity of the Spiegler-Jolle test solution, consisting of 4 g. bichloride of mercury, 4 g. succinic acid, 4 g.

sodium chloride and 100 c. c. of distilled water, was so near that of ordinary urine as to make a distinct ring in albuminous urine impossible. This test solution detects one two-thousandth of a gr. of albumin in a liter of water. Dr. Ravold found that by adding a saturated solution of magnesium sulphate C.P. to the Spiegler-Jolle solution the specific gravity of the combined solutions was increased over that of urine without impairing the testing of the solution. The improved solution gives a distinct, stable, contact ring with albuminous urine. This was demonstrated in two specimens of urine which did not show traces of albumen by the heat and nitric acid test, and which showed casts when examined microscopically. Discussions by Drs. Jacobson and King.

Dr. H. S. Crossen presented a report of two cases of brachial paralysis following surgical anesthesia, also charts and a demonstration on the cadaver of how this is caused. The demonstrations showed that the paralysis is caused by pressure of the soft parts surrounding the brachial plexus against the first rib, the clavicle being nearer to the rib when the arm is carried above the head than it is in the normal position of the arms. In holding the arm above the head for a prolonged period of time considerable continued pressure is applied over the brachial plexus. This form of brachial paralysis is rather frequent, and the demonstrations proved that liability to such should be prevented by allowing the arms to lie in a more natural position while an anesthetic is used. Recovery from this form of paralysis is rather rapid for a short

time, and is then very slow for many months. The usual treatment is hot applications, electricity, massage and passive motion. Discussions by Drs. Deutsch, Jonas, Bliss, Schwab, Carson, Blair, Ehrenfest and Campbell.

Dr. F. W. Abeken presented a paper on a curious case of vitality and prolonged preservation of life, with an unusual multiplicity of grave pathological conditions of important organs. He also presented specimens taken from the heart and lungs. The patient had been under observation of Dr. Abeken for a number of years, was a blacksmith and had had syphilis. He died of pneumonia at the age of eighty, and a post mortem examination revealed a calcarious encasement of the spleen, a calcified gumma, size of small egg, in one lung and a calcareous condition of the cardiac valves and beginning aorta.

Dr. V. P. Blair demonstrated a method of determining the exact location of any individual vertebra, also a method of locating a line from the twelfth dorsal vertebra to the eleventh rib so as to be below the lower pleural boundary. He stated that this may be of considerable value in diagnosing certain pathological conditions, also to the operating surgeon.

Dr. Davis Forster presented a paper on "Uterine Replacement." Dr. Forster advocates the thorough examination and repair of any existing cervical lacerations which tend to prolong the engorgement of the uterine vessels, and in mild cases of malposition the use of a suitable pessary. In his practice over 5 per cent of cases so treated have been benefited without operative procedure, and he believes that even a greater percent-

age of benefits may be obtained by using the pessary. In severe cases ventro fixation and suspension has given good results. Discussions by Drs. Hill, Kieffer and Morris. Dr. Kieffer stated that Kellog's modification of Alexander's operation was a logical procedure, and that by thorough understanding of its technique, was a simple and very effective procedure.

The society adopted resolutions presented by Dr. Homan relative to a change in the system of control and management of our municipal hospitals. A committee consisting of Drs. R. Leudeking, A. R. Kieffer, G. M. Phillips, Bransford Lewis and J. H. Simon was appointed to confer and co-operate with members chosen from the several medical and surgical societies of the city. The committee will formulate new plans and an improved system for regulating the hospital affairs, which, on approval of the society, will be recommended to the legislative bodies of St. Louis for consideration and action.

The following new members have been elected: Dr. G. Gellhorn, Dr. R. C. Forsythe, Dr. R. H. Kuhman, Dr. H. Muetze, Dr. R. W. Mills, Dr. T. R. Ayers, Dr. F. G. A. Bardenheier, Dr. R. P. Scholtz, Dr. Chas. Tooker, Dr. W. U. Kennedy.

C. H. SHUTT, Reporter.

COOPER COUNTY MEDICAL SOCIETY.

Dr. P. L. Hurt, President.

Dr. R. S. Holman, Secretary-Treasurer.

The Cooper County Medical Society held its regular monthly meeting January 3d. Dr. P. L. Hurt in the

chair. The minutes of the previous meeting were read and approved. A case of strangulated hernia was reported by Dr. F. H. Smiley; he had operated on the case and recovery was uninterrupted. A paper was read by Dr. Hurt; subject, "Labor and its Proper Management." The paper was discussed by all present. A letter of dismission was granted Dr. J. D. Potts to join the St. Louis Medical Society. There being no further business the meeting adjourned to the first Tuesday in February.

R. S. HOLMAN, Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. Robert T. Sloan, President.

Dr. Max Goldman, Secretary.

Dr. L. W. Luscher, Treasurer.

The scientific program presented before the Jackson County Medical Society at its regular meeting on February 23, 1905, consisted of two papers, both of which elicited considerable discussion; one by Dr. J. Q. Chambers, on the subject "Chorea;" the other by Dr. H. C. Crowell, on "Vaginal Coeliotomy." Dr. Chambers' paper was an instructive consideration of this disease of the nervous system, special reference being made to its etiology, varieties, and relation to some infectious diseases. It was filled with valuable suggestions and from the point of view of thoroughness, evidenced no inconsiderable amount of study on the part of the essayist. It included also a report of some cases which recently came under the observation of the author.

The discussion was opened by Dr. John Punton, who, in the course of his remarks, emphasized the more im-

portant topics of the paper; such as the classification of the types or kinds of the disease, the question of its infectious character and its relation to rheumatism, which is especially significant. He concluded by summing up the treatment of this affection as follows: (1) Remove the cause; (2) allay nervous symptoms; (3) improve the nutrition.

The paper by Dr. Crowell, on "Vaginal Coeliotomy," was one of much practical value and interest. The doctor received the advantages of this operation in many cases over abdominal section, and reported a number of instances recently observed to illustrate many of the claims made by him in favor of this method of operative interference for diseases of the pelvic organs.

Dr. Thomas J. Beattie opened the discussion; he compared the practical value of the vaginal with that of the abdominal operation, and prophesied that in the near future the former will be more often selected by surgeons for the reasons outlined in Dr. Crowell's paper, viz., the advantage of good drainage, less shock, more speedy recovery and avoidance of abdominal scar and hernia.

MEETING OF MARCH 9TH.

The Jackson County Medical Society met in regular session March 9, 1905, the vice-president, Dr. E. H. Thrailkill, in the chair. There was a large attendance and many of those present took part in the discussion of the subject presented before the society.

Dr. William Frack read a paper entitled "Staphylococcic Diseases of the Skin." The paper was of value,

chiefly from the standpoint of differential diagnosis from other infective skin inflammations. A number of diseases of the skin due to staphylococcic infection were considered.

The discussion was opened by Dr. J. P. Knoche, who commented upon the value to the general practitioner of the consideration of such a subject. In the course of his remarks he mentioned epidemics of staphylococcic infections of the skin which had come under his observation, and he alluded to the care which should be exercised in preventing the spread of such contagious affections. He spoke of several skin diseases of children due to staphylococcic infection.

Two interesting cases of hydronephrosis were reported; in one the renal substance had degenerated almost entirely and became enclosed, together with a large amount of fluid, in a dense fibrous capsule; in the other case the operation consisted of incision and drainage, with elevation and fixation of the kidney structure. In the latter case some renal substance still remained, and when it was found by irrigation with solution of methylene blue that the ureter was not obstructed by a twist or stone, the above procedure was indicated and was resorted to at the time the case was reported, there were encouraging prospects of closure of the fistulous tract and restoration of some of the renal function.

The discussion was opened by Dr. A. E. Hertzler.

Dr. E. L. Russell presented and reported in detail a case of acute endocarditis resulting in a mitral regurgitation, occurring after several rather mild attacks of inflammatory rheuma-

tism in a boy seven years of age. The sound heard in this case, in addition to presenting all the classical features of mitral insufficiency murmurs, was characterized by a marked musical intonation that could be heard very clearly through the chest wall. In the report of this case Dr. Russell remarked that there was undoubtedly some relation between the heart lesion and the rheumatism, chorea and tonsilitis, which the little patient had experienced at various times.

Dr. B. H. Zwart, in opening the discussion of this case, emphasized the importance of diagnosis and prophylaxis in all cases of endocardial inflammation; and with reference to prophylaxis said that physicians should be especially careful in their treatment of any of the infectious diseases; they should constantly observe the condition.

MAX GOLDMAN, Secretary.

MISSISSIPPI COUNTY MEDICAL SOCIETY.

Dr. P. P. Boggan, President.

Dr. W. P. Howle, Secretary.

Dr. A. W. Chapman, Treasurer.

The Mississippi County Medical Society met in regular session at Charleston, March 6th, Dr. John M. Rowe occupying the chair in the absence of the president. The minutes of the January meeting were read and approved. A motion to have the secretary revise the delinquent list carried. On motion, a call meeting was ordered for April 3d, when steps will be taken looking to the entertainment of the Southeast Missouri Medical Association, which meets in Charleston on the first Tuesday in

May. Gen. J. J. Russell was selected to deliver the address of welcome.

W. P. HOWLE, Reporter.

BUTLER COUNTY MEDICAL SOCIETY.

Dr. W. A. Kendall, President.

Dr. J. J. Norwine, Secretary.

Dr. B. C. Jones, Treasurer.

Friday, March 10th, the Butler County Medical Society held its regular meeting in Poplar Bluff. Dr. J. M. P. Smith presided. Dr. J. J. Norwine reported two cases of diphtheria occurring in his practice in February. Cultures made the diagnosis positive. Following the use of antitoxin both cases made uneventful recoveries. The report brought forth liberal discussion. J. J. NORWINE, Reporter.

MACON COUNTY MEDICAL SOCIETY.

Dr. E. S. Smith, President.

Dr. G. B. Rush, Secretary.

Dr. W. H. Miller, Treasurer.

The Macon County Medical and Surgical Society held its regular meeting in the office of Dr. G. B. Rush at Macon, Missouri, Dr. Smith in the chair. Resolutions were adopted endorsing the medical practice act and the secretary was instructed to forward the same to our representative and senator in the legislature, urging their vigorous support of the same. Two clinical cases were presented—one a case of chronic interstitial nephritis in its incipient stage, another a case of chronic interstitial nephritis in a very advanced stage. The discussion of these cases consumed the time. The importance of the early recognition of this disease was emphasized as well as the necessity of a

microscopic examination of the urine for tube casts. Resolutions were adopted extending the sympathy of the society to Dr. J. F. Campbell, of Callao, in the serious illness of his wife. Arrangements were made and committees appointed to have a dinner at the June meeting, and Hon. B. E. Guthrie was invited to deliver an address on legal medicine at that time.

Q. B. MILLER, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. R. P. Davis, President.

Dr. G. C. Coffey, Secretary.

Dr. S. Redman, Treasurer.

The regular monthly meeting of the Platte County Medical Society was held in Platte City on the 1st day of March, Dr. R. P. Davis presiding. Dr. S. Redman reported a very interesting case of fracture of the outer third of the clavicle, in which there resulted decided atrophy and impaired function of the muscles of the arm. Dr. C. H. Chastain read a paper on iritis which is due in the majority of cases to syphilis, gonorrhœa, tuberculosis or rheumatism. Occasionally traumatism is the etiologic factor. The pupils are contracted and irregular and there is marked photophobia. In every examination of the eye where there is suspicion of iritis care should be taken to differentiate it from conjunctivitis as lack of proper treatment in case of iritis may result in much harm. Atropin in 1 per cent. solution is indicated in iritis. Dr. E. McD. Coffey introduced for discussion the subject of postpartem hemorrhage. He related experiences of fifty years ago and of today and pointed out that there has been little change.

He used then as now Crede's method of expelling the placenta, ice applications and ice internally, apple vinegar in the uterus and pressure. The subject called forth much discussion and many interesting and instructive experiences were related. The application of Dr. W. H. Lindley, of Weston, for membership was presented before adjournment. The next meeting will be held Wednesday, April 1st.

GRUNDY C. COFFEY, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. H. G. Wyer, President.

Dr. H. T. Randle, Secretary.

Dr. C. L. Armstrong, Treasurer.

The regular meeting of the St. Louis County Medical Society was called to order in Clayton, on the 8th of March. The minutes of the previous meeting were read and approved. Committees reported as follows: Drs. Carter, Higgins and Cape, the committee on Resolutions, reported having drafted and forwarded to the state board of health resolutions favoring a state sanatorium for consumptives. The committee on meeting place, consisting of Drs. Randal, Koch and Moore, reported having secured a room in the McElhiney Building. The reports of these committees were accepted and the committees discharged. A vote of appreciation was tendered Mr. Broadhead for the use of his office as a meeting place for the society. The name of Dr. Beck, of Carondelet, was presented for membership. At the next meeting of the society will vote on the names of Drs. Hanpeter, Berry and Beck for membership. A communication from the

state board of health, regarding the open letter to the public written by Dr. John D. Seba, of Bland, relative to the medical bills before the house, was read, but as the communication was received too late for action to be reported before the adjournment of the senate, it was laid over. The society expressed itself, however, in favor of the state board bill. Dr. Howard Carter read a very instructive paper on pediatrics, after which the society adjourned to meet on the second Wednesday in April.

H. T. RANDLE, Reporter.

CASS COUNTY MEDICAL SOCIETY.

Dr. R. D. Ramey, President.

Dr. J. S. Triplett, Secretary-Treasurer.

The Cass County Medical Society met in regular quarterly session at Harrisonville, March 2, 1905, Dr. R. D. Ramey in the chair. The principal paper of the afternoon was read by Dr. F. W. Foster, of East Lynne, his subject being "Gall-stones." This paper, which was well prepared and gave the latest teachings on the various phases of the subject, was discussed at length by Drs. Overholser, Adair, Triplett, Farrow and Ramey, who complimented the essayist on the excellence of his paper, and narrated cases in point from their own practices.

A quiz on "Endocarditis and the Various Valvular Diseases of the Heart" was conducted by Dr. M. P. Overholser.

Dr. Overholser announced that at a recent meeting of the state judicial council, held at St. Louis, arrangements were made to have Dr. McCor-

mack, the national organizer, address the physicians of Cass county while on his itinerary of western Missouri. The date and place of this meeting will be announced as soon as possible, and all the physicians of the county urged to attend, as it will be a rare treat to hear Dr. McCormack. The society adjourned to meet at Harrisonville, June 1, 1905.

J. S. TRIPLETT, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. P. I. Leonard, President.

Dr. C. W. Fassett, Secretary.

Dr. A. B. McGlothlin, Treasurer.

The regular meeting of the Buchanan County Medical Society was held February 18th, with attendance below the normal. The feature of the session consisted of reports of clinical cases by Drs. Wallace, Geiger and Campbell. An unusual case was reported of influenza, followed by the onset of a general peritonitis with consequent intestinal paresis. An operation was performed for intestinal obstruction. A diffuse peritonitis was found, but nothing discovered to account for it. The small intestine was greatly distended, and careful examination failed to reveal any mechanical cause for the paresis. The question which arose in this case was whether the influenza bacillus may not have been the chief causative factor in the production of the peritonitis, either through the circulation or by direct extension from the lumen of the bowel, as there had been in this instance a previous enteritis of a few days' duration. Several other similar cases were reported. A letter from Dr. Delafield of New York was quoted,

in which he claims to have no knowledge of peritonitis caused by the bacillus of influenza. The first meeting of the month of March was held on the 4th. Dr. C. A. Good presented a carefully prepared paper on "Gonorrhoeal Diseases Other Than Those of the Genito-Urinary Tract." This paper was well received and generally discussed. Several interesting clinical cases were reported.

L. A. TODD, Reporter.

STODDARD COUNTY MEDICAL SOCIETY.

Dr. R. Corbin, President.

Dr. John Ashley, Secretary.

Dr. S. M. Evans, Treasurer.

The Stoddard County Medical Society met in regular quarterly session Wednesday, March 1st, at Masonic Hall, Bloomfield. Dr. D. R. Corkin presiding. The president appointed committees as follows: Committee on Public Health, Dr. T. B. Wingo of Dexter, Dr. L. Burris of Puxico and Dr. B. J. Cline of Ardeola. Board of Censors—Dr. J. A. Tiller of Leora, Dr. W. M. Evans of Bloomfield and Dr. W. C. Caldwell of Essex. Dr. Geo. W. Vernon, of Dexter, was elected reporter for the year, and Dr. T. C. Allen, of Bernie, was elected delegate to the State Association, Dr. Vernon alternate.

Dr. F. B. Wingo read a paper on "Diphtheria," which he defined as a specific infectious disease, characterized by local fibrinous exudate, usually upon a mucous membrane, and by constitutional symptoms due to the toxine formed, principally at the site of the lesion and carried throughout the system. Diphtheria is definitely diagnosed from other membranous

affections by demonstrating the presence of the Klebs-Loeffler bacillus. Membranous pharyngitis of scarlet fever closely resembles diphtheria, but the fever is higher and more nearly continuously high, the edema greater, and the extension of the inflammatory processes to the eustachian tubes more nearly constant. The characteristic eruption, and the absence of the Klebs-Loeffler bacillus, makes the diagnosis positive. The prognosis, which formerly was very bad, mortality from 45 to 64 per cent. is now guarded with the mortality reduced to 15, or in many epidemics even as low as 5 per cent. This very great improvement being due to the introduction and the extensive use of antitoxin. As to the treatment, the patient should be isolated and the strictest hygienic rules observed to the letter, good, nutritious, easily assimilated food; stimulants; (alcohol preferably) pushed to the limit if signs of exhaustion develop. The essential treatment is the administration of antitoxin, not less than 3000 units, as early as possible, and repeated in twelve hours if no great improvement is noticed. If the patient be seen late when there is progressive asphyxia, loss of voice, dyspnea, stridor, recession of chest and abdomen, either intubation or tracheotomy should be performed at once; intubation if the child be under three years, tracheotomy if over four years of age.

The discussion of the excellent paper was general. Dr. Allen said he did not feel that he was entitled to express his views in the matter as they were entirely theoretical, he having never seen a case of diphtheria. He enjoyed the paper very much, and if

called upon to treat a case would use antitoxin. Dr. Evans wished to congratulate the essayist on the delightfully entertaining and logically instructive manner in which he presented the subject. He would use antitoxin, stimulants, iron and quinine. Dr. Turnbaugh stated that he was very sorry to have come in too late to hear the paper, which he understood to be a most excellent one. He reported four cases in one family. The first to develop found him unable to obtain antitoxin in time, so he used iron and potassium chlorate locally and internally together with stimulants, but lost the patient. The antitoxin having arrived in time for the other patients, the children were given 1500 units each and the mother 3000, all three making uneventful recoveries. Dr. Ashley reported a case in his practice in 1890, which illustrated the danger of forcibly removing the membrane. The patient, a girl, sixteen years of age, was treated symptomatically and supportively, and seemed to be making satisfactory progress. The parents, however, were not altogether satisfied and called another physician, who swabbed the throat with guaiacol, using sufficient force to tear away the membrane. The patient promptly became worse and died. Dr. Vernon had not seen a case of diphtheria for several years, but reported the last two cases he had had. In these he used coal oil freely, both locally and internally, in addition to supportive measures. Both cases recovered. Dr. Wingo, in closing the discussion, stated that in a series of forty cases which he had seen with his preceptor, all but two recovered under the antitoxin treatment,

and those two were seen too late.

Dr. Corbin introduced the subject of "Fees and Collections" for general discussion, stating that this is always a subject of special interest to the doctor. Dr. Corbin expressed the hope we all have in the matter, that the physicians of Stoddard county may be aroused to formulate some plan whereby we may cease being the victims of "dead beats." Most of us are practicing medicine, not alone for pleasure or our health, but in order to make a living, and to lay up sufficient for our declining years. The worthy poor should be treated conscientiously, but the dead beat should receive nothing more than he pays for. By standing together as other business men do, the doctors might keep fees at the proper mark and do away with all unworthy, bad-pay or no-pay practice. The discussion of the subject was general and resulted in a common understanding that at the next meeting there will be a comparison of notes and a list made

of those able to pay their doctor's bills who do not.

GEORGE W. VERNON, Reporter.

AUDRAIN COUNTY MEDICAL SOCIETY.

Dr. C. A. Rothwell, President.

Dr. E. S. Cave, Secretary-Treasurer.

The Audrain County Medical Society met March 6th in regular session in the office of Dr. E. S. Cave at Mexico, Dr. C. A. Rothwell presiding. The minutes of the previous meeting were read and approved. Dr. C. A. Rothwell, the newly elected president, upon assuming the duties of the office for the year 1905, in a well chosen speech, thanked the society for the honor bestowed upon him and promised to faithfully perform the duties of the office to the best of his abilities. Dr. Cave read a paper on "Puerperal Eclampsia." General discussion followed. Dr. Lanier, of Martinsburg, was appointed to read a paper at the April meeting. Adjournment was followed by an informal smoker.

E. S. CAVE, Reporter.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

BRACHIAL PARALYSIS.

Meeting of February 25, 1905.

Dr. H. S. Crossen read a paper on this subject, for which see page 526.

DISCUSSION.

Dr. Ernst Jonas said that inasmuch as Dr. Deutsch had asked him to present a translation of his thesis, he had prepared a brief resume of the paper which was written in 1895, for the purpose of getting his degree at the Berlin University. He had described two cases which occurred in the clinic at Berlin.

At that time he had not made so searching a review of the literature on the subject as he would have done later, so he was sure many cases had escaped his attention. Dr. Jonas' abstract was as follows:

Now, if we care to review once more the views of the different authors on the subject of the origin or causation of the paralysis following anaesthesia, we find them all with the exception of one case (3) of Bridinger's, which, from the findings at the autopsy, he

classes as belonging to the cerebral kind, all to belong to the domain of peripheral paralyses. Here, too, there remains in this regard no doubt that these peripheral paralyses are caused by forcible elevation backwards and upwards of the arm, by which a decided pressure against the brachial plexus is exerted. The point at variance among authorities in the literature is as to where the pressure on the plexus takes place.

After the experiments of Bernhardt and Braun, they concluded that the paralyses following anaesthesia are due to the fact that the clavicle, in the elevation of the arm, presses the plexus against the transverse processes of the sixth and seventh cervical vertebræ.

However, that this view is entirely wrong is easily proven by anatomical study, by which one sees that even during extreme elevation, at no time is it possible to find the cervical vertebræ in such a position that makes compression of the nerve plexus possible. Further investigations by Budinger, Kron, Gaupp, and at that time by myself, showed a different point of pressure upon the nerves. These various studies showed that it is the first rib against which the nerves are pressed by the clavicle in extreme elevation of the arm. That this is the correct opinion can be easily demonstrated on the cadaver. Then, too, besides this paralysis caused by pressure on the plexus, we may get paralysis of the individual nerves by pressure of the head of the humerus in the axilla. Sometimes, also, individual nerve paralysis is caused by pressing the arm against the edge of the operating table.

While there are different views in regard to the point of pressure in this class of cases, the authors all agree that the compression causing these paralyses is always brought about by the forcible and extreme elevation

of the arm. Even though in the last years attention has occasionally been called to this very important condition, still not enough care is exercised as to the position in which the arm should be held during anaesthetics, especially those that consume about an hour or longer. If the operators, as well as their assistants, who look after the anaesthesia, would give this subject more attention, then truly this class of paralyses which, according to my opinion, happens more often than we are lead to believe, from the scarce reports in the literature, then, indeed, this class of paralyses will occur less frequently, or, perhaps, not at all. Any one who has ever witnessed the sorrowful countenance shown by the patient who on awakening from the narcosis notices that his arm is completely paralyzed, made worse by the knowledge that such paralysis may last for months and months before such an arm is again absolutely restored to its former function, will be only too willing to avoid such a possible calamity by seeing that the arm is not elevated above a right angle to the body. Of course, also, attention must be paid to such proper position of the head and neck, so as to avoid any tension on the nerve trunks. This can be readily accomplished by placing the head on a pillow and should the patient vomit, by turning the head towards the side of the elevated arm.

Dr. Hugo Ehrenfest had been struck by the fact that in the cases mentioned by the essayist the left arm was the affected one. It called to mind the habit of anesthetists of pulling up the left arm to watch the pulse, but in glancing over the dissertation of Dr. Jonas he noted that the majority of the cases collected by him had occurred on the right side.

UTERINE REPLACEMENT.

Meeting of March 11, 1905.

Dr. Davis Forster read this paper with the above title, for which see page 555.

DISCUSSION.

Dr. Roland Hill said that in one case that he knew of personally where a ventrofixation

was made the patient had died afterwards in a pregnancy. In cases where a simple ventrosuspension was made the condition was favorable to strangulation of the bowel. Two of the best methods Dr. Forster had not mentioned. One was that of Dr. G. W. Noble, of

Georgia. A transverse incision was made one and one-half inches above the pubes, the fascia cut, the transversalis muscle separated, the round ligaments caught and drawn together and stitched in place. The strongest part of the ligament was thus right over the rectus muscle. Another operation done quite extensively was that of Clarence Webster. The round ligament in that operation was pushed through the broad ligament and stitched for support behind the uterus, but that left a band of ligament at its weakest point. Another good method was that of Simpson, in which the ligaments were drawn in front of the transversalis fascia and stitched together so as to shorten them just in front of the peritoneum.

Dr. A. R. Kieffer said that the operations for replacing the uterus and holding it there were divided into two classes: those in which there was the factor of subinvolution, and those in which that factor was not present. Subinvolution of the uterus simply meant subinvolution of the round, broad and utero-sacral ligaments. These cases usually had this subinvolution, due to an injury to the cervix which, when repaired, as stated by the essayist, brought about a restoration of normal conditions, the uterus being temporarily supported with a pessary. In the other class there was a laxity of the tissue and the uterus would not stay in position. This was usually found in young women in poor health. Where there were no adhesions and no disease of the ovaries or tubes, shortening of the round ligaments in such cases was the ideal operation, because it left the round ligaments most nearly in their natural position. The Kellog modification of the Alexander operation was the best method, which was to find the ligament soon after it entered the canal and then strip it out. The speaker had never had any difficulty in finding the ligament here. He located the incision on the abdomen by the location of the femoral artery where it passed under Poupart's ligament. He cut just above Poupart's ligament and inside of the internal abdominal ring. In that location an incision an inch long was sufficient. After dividing the tissues to the external oblique he separated the fibers of the aponeurosis of the external oblique just above Poupart's ligament, and just inside of the deep epigastric artery. One would be hindered by the fibers of the

internal oblique if he got too close to the epigastric. The artery and its veins must be avoided. By reaching in with a dull hook, keeping the point against the aponeurosis, the ligament could usually be gotten the first time, but if not the operator could hold the structures obtained and try again. The fascia should be carefully divided and the ligament could be stripped out without any danger of fracturing the ligament or stripping off any of its fibers and weakening it. From four and a half to six inches would have to be drawn out before the uterus could be gotten into position. The normal attachment should be left as it was, for it aided in maintaining the nutrition of the ligament. After pulling up the ligament the peritoneum would be found surrounding it and had to be peeled off. This finished he would have a long loop of sound ligament with normal attachments at each end. He put in one suture through one border of the opening he had made, then caught a little of the ligament and the border of the aponeurosis on the other side and tied that. He then made a puncture through the aponeurosis of the ex-oblique one-half inch above the point of first puncture, and another about three-fourths of an inch above that, the loop of ligament being drawn into the second puncture and out at the third with a very narrow tape, which would not injure the ligament at all. He used a very fine cat-gut, taking up a little of the border of the proximal limb of the loop of the ligament at each of these punctures and then fastened the end of the loop as far away from that as possible. The ligament is fed chiefly by a central artery which must not be included in any of the sutures. The greatest objection to the intra-peritoneal operation in the class of cases first described, was that these operations were done in this class of cases for trouble that did not hazard the life of the patient. The patient was not in danger and he questioned whether one was justified in opening up the abdominal cavity under the circumstances. He knew of several cases that had died from opening the abdomen to suspend the uterus. If an infection was set up by the Alexander method, though the result of the operation might be spoiled, the patient would not die. The more experience one had the easier it was to find the ligament. It had been said that the ligament would break and give way,

Emil Ries, of Chicago, at a meeting of the American Medical Association, had challenged anyone to prove one case where the ligament had broken or given way, and no one had answered the challenge.

Dr. C. C. Morris said that a point or two in Dr. Forster's paper not mentioned by other speakers, was in reference to the support of the uterus aside from these operations, namely, the pessary. In his own experience he had not been able to give to the pessary the praise that had been allotted to it by Dr. Forster, that five to fifteen per cent. of the cases were benefited. On the other hand, more harm had been done than good accomplished. If used in subinvolution, which always existed where there was a laceration of the cervix, the majority of these cases got worse instead of better. The interference with the circulation increased rather than diminished the subinvolution, hence he had discarded many years ago every kind of pessary. The operation just discussed by Dr. Kieffer was perhaps the best method of procedure, where it was to be done extraperitoneally. With Kelly's operation he had had more experience. The idea that it interfered with subsequent pregnancies was more theoretical than practical. He had heard from a physician in Illinois for whom he had done a ventro-suspension two years ago. He wrote that the patient was pregnant and that he was making close observations, and that the patient had experienced no inconvenience as a result of the operation. In due time he wrote that he had delivered the patient of a healthy child in normal labor, and that the uterus was in proper position afterward. So the Kelly operation should not be condemned simply because of a theoretical idea that it would interfere with future pregnancies. There were cases where the results could be

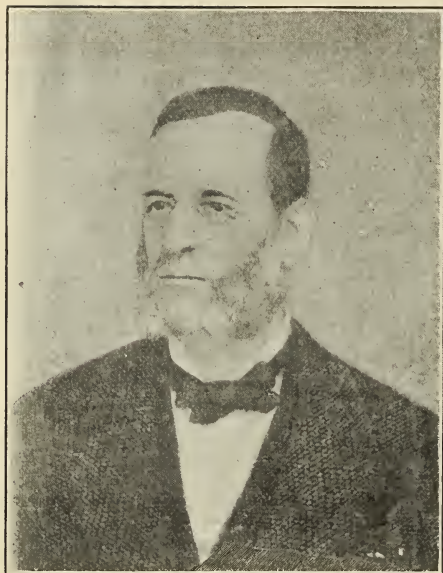
better accomplished by intraperitoneal operation than by the Alexander method. This patient not only had a misplaced uterus but a subinvolution of all the organs, and in many of these cases there was also a laceration of the cervix and a laceration of the perineum. As to the dangers, he could hardly conceive of the danger Dr. Kieffer had mentioned. Although cases might be infected, yet there should not be one-tenth of one per cent. of deaths in that class of work. Modern methods of operative procedure ought to preclude any possibility of danger. Infection would not be an element that would deter him from entering the abdominal cavity.

Dr. Forster in closing said he wished to emphasize the value of the Kellogg and the Gilliam operations in properly selected cases. The points in the Gilliam operation, consisting first of a medium incision, through which the pelvic contents might be inspected. Then with retractors on each side the recti muscles are pulled away from edge of wound and the internal oblique muscle, fascia and peritoneum are included in grasp of vulsellum forceps. Then punctures made through these structures, grasping tape surrounding round ligament and drawing round ligament through this puncture in the peritoneum fascia and internal oblique muscle and sewing it in that position.

It was an operation which must win favor. With regard to use of pessary, he believed he was conservative in saying that 5 per cent. of cases in which pessaries were used in conjunction with other treatment, the results were beneficial. Where the cervix was repaired before the pessary was applied, the number was increased to 15 per cent.

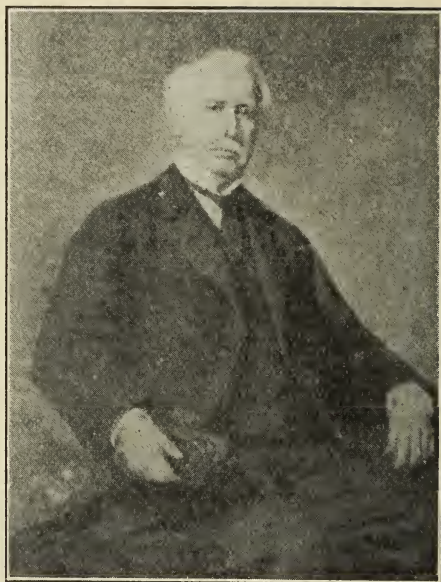
While another might do better with some other methods, after all our judgments were based on our own individual experience.

BIOGRAPHICAL SKETCHES.



AUSTIN FLINT.

Austin Flint was born in Northampton, Massachusetts, March 28, 1836. After graduating at Harvard University, he attended the University of Louisville, where he received his medical degree in 1856. In 1857 he graduated at Jefferson Medical College, and in 1858 was made professor of physiology and microscopical anatomy in the University of Buffalo. In 1859 he accepted the chair of physiology in the New York Medical College, and in 1860 a similar professorship in the New Orleans Medical School. In 1861 he was elected professor of microscopical anatomy at Bellevue Medical Hospital, and in 1862 returned to the teaching of physiology as professor in the Long Island College Hospital. His most exhaustive work is his "Physiology of Man," although this great work never attained the popularity of his text book of "Human Physiology," which appeared in 1876.



DAVID HAYES AGNEW.

David Hayes Agnew was born in Lancaster county, Pennsylvania, November 24, 1818. He graduated at the medical department of the University of Pennsylvania in 1838, and set up in practice at Philadelphia, where he accepted a lectureship in anatomy in the Philadelphia School of Anatomy. In 1854 he was appointed surgeon at the Philadelphia Hospital, the pathological museum of which institution he founded. For twenty-six years, 1863-89, he was a member of the medical faculty of the University of Pennsylvania, being elected professor of operative surgery in 1870 and professor of principles and practice of surgery the following year. When President Garfield was fatally wounded, in 1881, Dr. Agnew attended him as operating surgeon. Among his several works, the most important was "The Principles and Practice of Surgery," in three volumes. He died in Philadelphia March 22, 1892.

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Bates.....	A. E. Lyle	Butler.....	E. N. Chastian.....	Rich Hill.
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Clay.....	L. J. Jones	Linden.....	F. H. Matthews.....	Liberty.
Cole.....	J. P. North	Jefferson City.....	G. Etmueller.....	Jefferson City.
Cooper.....	P. L. Hurt	Boonville.....	R. S. Holman.....	Boonville.
Crawford.....	W. A. Metcalf	Steeleville.....	A. H. Horn.....	Steeleville.
Current River.....	Frank Hyde	Eminence.....	J. A. Chilton.....	Van Buren.
Daviess.....	J. D. Dunham	Pattonsburg.....	M. A. Smith.....	Gallatin.
Dunklin.....	N. F. Kelley	Kennett.....	G. L. Johnson.....	Kennett.
Grundy.....	J. A. Asher	Trenton.....	W. D. Fulkerson.....	Trenton.
Henry.....	Jno. H. Britts	Clinton.....	F. M. Douglas.....	Clinton.
Holt.....	B. T. Quigley	Mound City.....	J. F. Chandler.....	Forest City.
Howard.....	A. W. Moore	Fayette.....	C. W. Watts.....	Fayette.
Howell.....	J. W. Bingham	Pottersville.....	H. C. Shuttee.....	West Plains.
Iron.....	R. W. Gay	Ironton.....	Ira A. Marshall.....	Ironton.
Jackson.....	Robt. T. Sloan	Kansas City.....	Max Goldman.....	Kansas City.
Jasper.....	R. L. Neff	Joplin.....	J. D. Pifer.....	Joplin.
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Madison.....	G. W. Greenwood	Fredericktown.....	C. U. Davis.....	Fredericktown
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Marion.....	R. H. Goodier	Hannibal.....	F. Janet Reid.....	Hannibal.
Mercer.....	H. P. Chesmore	Princeton.....	C. R. Buren.....	Princeton.
Miller.....	S. P. Hickman	Ulman.....	G. D. Walker.....	Eldon.
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Moniteau.....	J. B. Stewart	Clarksburg.....	W. R. Patterson.....	Tipton.
Monroe.....	G. B. Dysart	Paris.....	W. B. A. McNutt.....	Monroe City.
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Newton.....	J. W. Lamson	Neosho.....	Horace Bowers.....	Neosho.
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Perry.....	T. M. Hudson	Perryville.....	F. M. Vellells.....	Perryville.
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Ray.....	Chas. B. Shotwell	Richmond.....	L. D. Greene.....	Richmond.
Reynolds.....	J. M. Lowery	Centerville.....	T. W. Chilton.....	Corridon.
Saline.....	D. C. Gore	Marshall.....	D. F. Bell.....	Marshall.
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St. Genevieve.....	M. Andre	St. Genevieve.....	F. E. Hinch.....	St. Genevieve.
St. Louis.....	F. L. Henderson	Century Bldg.....	T. A. Hopkins.....	Century Bldg.
St. Louis Co.....	H. G. Wyer	Kirkwood.....	H. T. Randle.....	Clayton.
Schuyler.....	J. T. Jones	Queen City.....	H. E. Gerwig.....	Downing.
Scotland.....	W. E. Alexander	Memphis.....	O. F. Pile.....	Memphis.
Shelby.....	H. C. Vaughn	Shelbina.....	A. M. Wood.....	Lentner.
Stoddard.....	D. R. Corbin	Bloomfield.....	Jno. Ashley.....	Bloomfield.
Sullivan.....	J. C. Kessenger	Milan.....	J. S. Montgomery.....	Milan.
Washington.....	J. A. Eaton	Belgrade.....	W. S. Smith.....	Belgrade.
Wayne.....	L. M. Pettit	Greenville.....	I. N. Barnett.....	Piedmont.

AMERICAN MEDICAL ASSOCIATION

Next Annual Meeting at Portland, Oregon, July 11th to 14th, 1905.

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Fourth Vice-President: B. C. PENNINGTON, Atlantic City, N. J.

Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Excelsior Springs, May 16, 17 and 18, 1905.

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ORIGINAL ARTICLES.

THE ETIOLOGY AND TREATMENT OF ECLAMPSIA.*

BY HENRY SCHWARZ, M. D.,

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Extraordinary are the demands which nature makes on the maternal organism during pregnancy. Besides the work necessary for its own maintenance, it must take up and digest the food required for the building up of the rapidly growing fetus; it must carry this building material to the placenta, together with the necessary oxygen for the sustenance of fetal life. Likewise it must carry away and eliminate the waste products of fetal metabolism. This work increases as pregnancy advances. We have no reason to think that these waste products are not sufficiently oxidized in the fetal body to be ready for elimination when they enter the maternal system through the placenta; nor is there a necessity for believing that they differ in any way from similar substances in the maternal system, or that they constitute a special poison.

Work of a more complicated character is added by the deportation of placental elements by the maternal blood current. The chorionic villi with their coating of syncytium dip

into the maternal blood and syncytial cells are almost constantly detached and carried away by the maternal current. Schmorl¹ examined the lungs of 150 women who died during the different periods of pregnancy or the puerperium and he found embolic deportation of placental cells exceedingly common. They were present in greatest number in the lungs of eighty-three cases that had died of eclampsia; in other cases they would sometimes be missed. They were found in cases that had died before labor had set in and also during the early months of pregnancy. Whole villi were found only when a severe mechanical disturbance of the placenta had taken place, as in manual detachment of adherent placentæ.

In two cases of abortion in the first and second months of pregnancy that had died from septicemia, especially numerous embolisms were observed, originating partly from syncytial cells, and partly from the cells of Langhans, and partly from both.

In three cases of death from abortion of hydatiform mole, the embolisms in the lungs were more numer-

* Read before the St. Louis Obstetrical and Gynecological Society, April 13, 1905.

ous than Schmorl had ever seen before and the deported cells showed distinct proliferation. In only three out of the other 150 cases were such proliferations found.

Busse, in *Virchow's Archives*, Vol. 174, describes a case of numerous embolisms in the brain of syncytial origin; the cells had grown through the walls of the capillaries and caused hemorrhagic spots. Similar thrombi were found in the arteries and veins of the lungs, the spleen, the kidneys, the liver and the intestines; in the left ventricle there was a large chorio-epithelioma. These detached syncytial cells retain the power of digesting or corroding the tissues they come in contact with and also the power of proliferation, and they are at times the starting point of that most malignant of new formations—the chorio-epithelioma.

I take pleasure in demonstrating to you the presence of these syncytial cells in the lungs from the slides here exhibited.

The presence of the placental cells in the maternal blood as already stated, requires more complicated work for their removal. Glands, with internal secretions like the thyroid, seem particularly active in this respect and hence may the frequent enlargement of this gland during pregnancy find an explanation.

It is evident that nature has made ample provision for the carrying on of this strenuous work, and that as long as there is perfect oxidation of all the waste products there is no more toxemia during pregnancy than at any other time. In order that toxemia should develop there must be some

special disturbance of the arrangement for oxidizing and eliminating waste products. These special disturbances constitute the exciting causes for eclamptic convulsions, while the resulting toxemia constitutes the real cause.

Of the exciting causes, disturbance of the kidney secretion is the most common; next in order comes the irritation of peripheral nerves, overexcitement and overexertion.

1. Compression of one or both ureters by the pregnant uterus will cause in a mechanical way a decrease in the secretion of urine. It naturally produces tension back of the point of compression up into the pelvis of the kidney, and even up into the uriniferous tubes. The flow of blood in the renal vein is retarded and a venous engorgement of the kidney results. The kidney substance is squeezed between the column of urine in the pelvis and the unyielding kidney capsule.

These changes are possible without causing more than a temporary dilatation of the ureters, but such dilatations have been found by Ohlshausen, Cruveilhier, Pollack, Loehlein and others. In sixty-nine autopsies of eclamptic patients they were present thirteen times. Halbertsma had long ago pointed out this mechanical compression of the ureter as one of the causes of eclamptic convulsions, and his pupil, Mynlieff², has done so again recently. The convulsions in these cases are simple uremic convulsions.

Sippel³ found at the post mortem of an eclamptic patient the right kidney large, of dark bluish-black color, the pelvis and ureter dilated and the renal capsule under immense tension; a cut

into this capsule caused the edges to separate and the kidney substance to well up over the edges of the incision, because it had evidently been under high pressure. Sippel supposes that in this case the patient might have been saved by decapsulation; he sees the connection between compression of the ureter by the pregnant uterus with consecutive intra-renal tension and decreased or suppressed secretion of urine, which may lead to eclampsia; and advises decapsulation in cases in which, after emptying the uterus, the convulsions and anuria continue.

2. The kidney secretion may be deficient on account of true Bright's disease, and the convulsions will again be of the uremic type.

3. There may be a pregnancy kidney with more or less suppression of urine. The pregnancy kidney is caused by toxemia. The highest form of oxidation of the nitrogenous waste products is represented by urea, next in order comes uric acid. The liver is the principal but not the only producer of urea and uric acid. Xanthin, hypoxanthin, carbaminic acid and similar bodies represent lower forms of oxidation (Landois); the latter is a known chemical poison; these and similar substances possess less osmotic energy than do the higher forms of oxidation and therefore are apt to irritate the renal epithelium and to cause the changes which we collectively call pregnancy kidney. When these changes are sufficient to cause a suppression of the urine the convulsions may again be of uremic type, or they may be caused by the toxemia, or by both.

Toxemia, that is the presence in the blood of toxic material which may

cause a number of disturbances in the maternal organism, including and culminating in eclamptic convulsions, is not a physiologic condition and is not present in all pregnant women to a greater or less degree as is claimed by some of the apostles of the toxemia theory.

As already stated, it results from imperfect oxidation of the nitrogenous waste products, so that the formation of urea and uric acid is reduced, while the intermediary products, the so-called leucomaines, accumulate in the system. Organic chemistry will in time make us acquainted with a greater number of these bodies, and one or more of them may prove to be poisons capable of producing in pregnant women the convulsions called eclamptic.

Poehl⁴, of St. Petersburg, has shown that spermin, an organic base present in relatively large quantities in the testicles, ovaries, prostate, thyroid, thymus, pancreas, spleen, and also as a normal constituent in the blood, causes and accelerates intraorgan-oxidation and plays an important part in tissue respiration, and in all organs having internal secretion. Spermin effects oxidation only when in solution, and its action being catalytic⁵ * in nature does not depend on the quantity of spermin present.

Under certain conditions spermin assumes an insoluble form and is rendered inactive; this form represents a phosphate of spermin; reduced alkal-

* Bodies or ferments, which by their mere presence cause or accelerate certain processes without entering into the resulting products, are called katalysators; the phenomenon, katalysis. Organotherapeutics owe their results to the presence of spermin and other katalysators.

escence of the blood is one of the main causes of rendering spermin inactive and, consequently, of autointoxication. This phosphate is identical with the Charcot-Leyden crystals.

Poehl⁶ and Verworn have shown that overexcitement of the nerves and overexertion of the muscles lead to autointoxication by reducing the alkalescence of the tissues and lowering the oxidation process by rendering the spermin and other katalysators inactive and by reducing the tissue respiration. The urine under such conditions shows that the quantity of nitrogen eliminated as urea and uric acid is decreased ten per cent. or more, which nitrogen is apportioned to the intermediary products, some of which have direct toxic properties, such as xanthin, hypoxanthin, kreatin, neurin and others. Poehl explains in this manner the result of his examination of eight bicyclists who rode from Moscow to St. Petersburg. In seven of these he found an irritation of the kidney, which was manifested by hyaline cylinders in the urine, and in two of these cases even fine granulated cylinders were present. These toxic symptoms are explained by Goucher's observations with regard to the irritating effects of xanthin and hypoxanthin upon the kidneys.

We can understand how, in like manner, the intense mental excitement of the parturient woman or the immense muscular exertion of the uterus during labor, will lower the oxidation of the nitrogenous waste products in the maternal system and cause toxemia by the accumulation of the intermediary more or less toxic products. We can also understand that under such conditions eclamptic con-

vulsions may develop spontaneously as it were, or through the irritation of peripheral nerves. Such irritation may be found in the intense suffering and excitement of a primiparous woman when the fetal head is on the floor of the pelvis and is hammering against the all too narrow opening of the vulva.

To recapitulate and to emphasize my position regarding puerperal eclampsia, I hold:

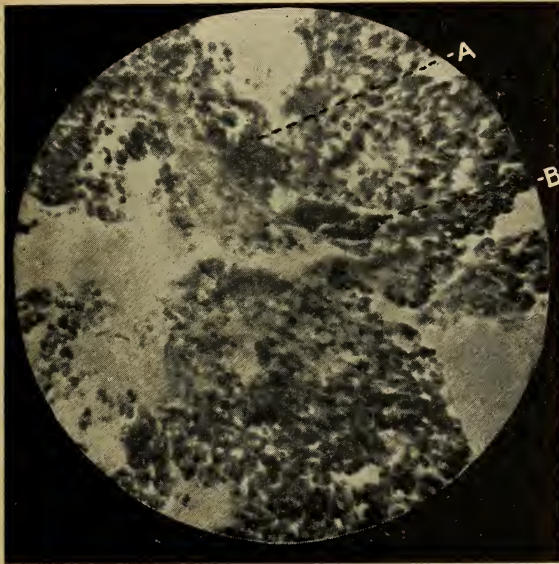
Firstly, that in a percentage of cases these convulsions are caused by insufficient kidney activity, either the result of true renal disease or of compression of the ureters by the pregnant uterus, and that the convulsions under such conditions are identical with uremic convulsions.

Secondly, that toxemia is not physiologically associated with pregnancy, but is the result of a disturbance of the process of oxidation of the nitrogenous waste products in the maternal system, resulting in the reduction of the amount of urea and uric acid formed and a corresponding increase in the formation of the intermediary products with which we are but insufficiently acquainted, but which possess, either individually or collectively, toxic and poisonous properties. I further claim that intense mental excitement and muscular activity will tend to provoke or to increase this toxic condition, and that the irritation of peripheral nerve endings under such conditions will produce an explosion in the form of the eclamptic convulsion.

I also insist that the pregnant woman is peculiarly predisposed to convulsions in a similar way as is early childhood.

Having thus explained my own conviction in the matter, I may be permitted to pass review on some of the theories which of late years have agitated the obstetrical world. For a long time it was claimed that a specific poison secreted by the fetus, and usually eliminated by the maternal kidneys, but sometimes irritating

is, from the placenta or the membranes or both. For, without discussing the fact that the poison in question has never been demonstrated in either case, it militates against good reason to believe that after having irritated the kidneys so as to cause their own retention in the maternal blood, and having provoked convul-



A—Blood cells
B—Syncytial cells } Both in capillary vessel.



Syncytial cells.

them and, by impairing the renal filter, causing its own retention in the maternal blood, was the cause of convulsions. The report of one or two cases of eclampsia in hydatiform mole without the presence of a fetus caused the desertion of this camp and the establishment of the later theory that the specific eclamptic poison originated from the fetal envelopes—that

sions, that these same poisons should after awhile pass without difficulty through a kidney which is no longer normal, as must be the case when eclamptic convulsions occur, without proving fatal and without interrupting pregnancy.

The discovery of syncytial cells in the maternal circulation has naturally set speculation agoing, and these ele-

ments are being blamed directly or indirectly as causing the eclamptic convulsions.

Veit blames them directly. *Ascoli* blames a hypothetical overproduction of syncytiolysin which is found in accordance with the laws of over-compensation. *Weichardt* tries to show that it is not the syncytiolysin, but the syncytiotoxin which the former produces, and which is not neutralized by the system, that causes the convulsions.

The syncytial cells have been found in great numbers in cases of early abortion, and particularly in connection with the hydatiform moles, where they have frequently developed into chorio-epithelioma, but only in one exceptional case has eclampsia been reported; they are likewise found in the lungs and liver of puerperal women who had no convulsions. The syncytium is most in evidence during the earlier months of pregnancy at a time when eclamptic convulsions are almost unknown. We have no evidence that these cells are dissolved by any kind of lysin, nor are we sure that they are of fetal origin. The villi of the chorion are sticking free in the maternal capillaries bathing themselves in the maternal blood, with a hole in the capillary wall. It might be claimed that the syncytial cells represent the modified endothelium of these capillaries.

Furthermore, a good many of the cells so found may not be syncytial cells at all. Dr. Baldwin, the assistant pathologist to the city hospital, tells me that they cannot be differentiated from giant cells found in all cases of toxic poisoning, unless a number of large nuclei surrounded by

protoplasm without cell division are found together.

In the few cases in which Schmorl found whole villi in the lungs there had been a mechanical disturbance of the placenta. Edgar, adopting the teaching of James Ewing, of Cornell University, gives the following definition of toxemia in pregnancy:

A state of the blood and metabolism arising from the hepatic insufficiency to which the pregnant woman strongly predisposes, expressed most commonly by trial ailments (petty morbidity of pregnancy), but exceptionally by serious, severe and even pernicious affections, such as acute yellow atrophy of the liver, pernicious vomiting, eclampsia; conditions which, while once thought to have nothing in common, are now seen to be closely related. The blood state in fatal cases resembles that of severe sepsis.

This last remark of Edgar I fail to understand, as severe sepsis is caused by a streptococcus infection, while toxemia is not. Otherwise his definition might go unchallenged except that it makes no provision for eclamptic convulsions on a uremic basis and that it includes the disturbances of pregnancy which usually disappear after the uterus rises out of the pelvis, among the manifestations of toxemia. They could not be expected to disappear at that time if they were of such origin.

No one will deny that pernicious vomiting should be included among the symptoms of toxemia when there is no plain mechanical cause for it. I cannot close this chapter without mentioning the publication of Dienst, of Breslau, on the

eclamptic poison⁷. Dienst, who is physician-in-chief to the University Lying-in Hospital of Breslau, thinks he has found the true explanation of the cause of eclampsia. He wants to make us believe that in many instances the fetal blood bears the same relation to the blood of its own mother as does the blood of a different species, and he also wants us to believe there is frequently a leak in the placenta, so that fetal blood is mingled with the maternal blood, and that in those cases in which the relation of maternal and fetal blood is like that of two distinct species the result is eclampsia. If Dienst is as careless with his experiments about agglutinins and hemolysins as he has been with locating the leaks in the placenta, his eclamptic poison must be a sad miscarriage.

He secured fifteen placentas of eclamptic women by sending circular letters to the midwives of Breslau; the placentas so obtained he injected with milk through the umbilical vein or through one of the arteries; every one of these placentas leaked. He next examined 335 placentas from non-eclamptic confinements, and, while they often showed leaks, these leaks were not nearly as big as in the placentas from eclamptic women.

He next proceeded to inject the placenta while it is still attached to the uterine wall; that is, in 160 cases he injected a sterile solution of methylene blue through the vein or one of the arteries as soon as the child was born, and found a leak in thirty-two cases, or 20 per cent. The leak was indicated by the temporary appearance of blue urine in these cases.

Of course it is ridiculous to claim

that in the clinic of Breslau the placentas remain attached to the wall of the uterus after the baby is born, when they refuse to do so in other parts of the world.*

The blood of 118 mothers and their children were examined in regard to agglutination and hemolysis. In twenty-four cases did the blood of the mother agglutinate, and even dissolve the blood of her infant. Of these cases fifteen placentas did not leak; the mothers staid well and the urine showed no trace of albumin; nine leaked and showed blue urine; seven had eclampsia; two escaped with albuminuria during pregnancy. In one case of a woman dying undelivered the placenta was injected in situ and the blue liquid came out of the uterine and spermatic veins.

These are strange doings in the University Clinic of Breslau. When Dienst injected the nine leaking placentas in the cases in which the maternal blood agglutinated the fetal blood, was he not lucky that he forced none of the fetal blood through the placental leak into the maternal system and killed his patient, already weakened by the eclamptic convulsions, which we are told had occurred

* In the discussion Dr. Taussig called my attention to the fact that the latest German writers believe that the placenta does not become detached until some time after the birth of the child, but in this belief they are clearly wrong, because with the interruption of the placental circulation the venosity of the fetal blood increases sufficiently to stimulate the respiratory center and to establish respiration. Now, everybody knows that under normal conditions the baby cries the moment it is born. Besides, twenty-five years of close observation has taught me that the placenta is found detached in the uterus as soon as the fetus is born.

in seven of them. And what would have happened if, in the remaining fifteen cases, in which the placenta did not leak but the relation of the fetal and maternal blood was the same, he had caused a leak by his experiment and forced some of the fetal blood into the maternal system?

According to Dienst albuminuria gravidarum, respectively eclampsia originates when the blood of the mother and fetus compare with each other like the blood of two different species and when there is a communication between the two. A small leak causes albuminuria, a big leak, eclampsia.

In other words, eclampsia is caused by the transfusion of heterogenous fetal blood into the maternal blood, and Dienst points out that the symptoms of eclampsia are the same as are caused by the transfusion of the blood of an animal of one species into the system of an animal belonging to another species, as for instance, from a sheep to a dog, and that the same symptoms used to be observed in man when sheep's blood was used for transfusion.

The agglutination of the blood corpuscles causes in either case dyspnoea, increased peristalsis, vomiting, stomachache, involuntary movement of the bowels, albuminuria, hemalbuminuria, hemoglobinuria, convulsions, high fever. Postmortem examinations show the same changes in the liver and other organs in both conditions.

All of Dienst's cases of eclampsia which recovered showed the greatest power for agglutination on the fourth and fifth day, and on the seventh or eighth day pronounced hemolytic

power; these characteristics were missing during the convulsive state.

Agglutinins must have been present in the maternal blood, no matter in how small a quantity, and they are simply increased, while the hemolysins are formed as a means to get rid of the foreign substances, viz., the blood of another species.

Hemolytic eclampsia-serum agglutinated only so-called normal blood and dissolved it. This reaction of the maternal body must be considered a defensive means, because a normal fetal blood has abnormally entered the maternal agglutinin-holding blood. We would have to take for granted that the maternal blood in these cases has been pathological to start with, or better, that it was an agglutinin-holding immune blood, while the fetal blood was normal blood.

Before we can seriously discuss Dienst's contentions we must await their confirmation by reliable and competent investigators.

While a contemplation of the etiology of puerperal convulsions as we teach it to-day may impress the superficial observer with an idea that we have made considerable progress along these lines during the last twenty-five years, a contemplation of our present means for preventing or curing eclampsia ought to lead to no such favorable estimate of our present mode of treatment compared with that of twenty-five years ago, for the simple reason that we evidently have failed to reduce the mortality. In Germany, at any rate, there must be plenty of women dying of eclampsia when Schmorl can examine the lungs of eighty-three eclamptic women, and

when Henkel, chief physician of Olshausen's clinic, in reporting sixteen cases of lumbar puncture with four deaths, explains that this mortality is no smaller than the ordinary mortality in Olshausen's clinic, which he states as being 20 per cent. And yet I hope to show you that we have made considerable progress. We have made none whatever, it is true, in the non-operative treatment because we use the same medicines that we used then, and the necessity for promptly emptying the uterus in certain cases was then as well understood as it is now, but a great deal of progress, I am sure in meeting that indication promptly and safely when it arises.

The best treatise on the subject that has ever come to my notice is that of Fordyce Barker in his work on puerperal diseases, published in 1874, a German translation of which was published in 1880, and it has been my constant companion ever since.

The truth is that most statistics can give no adequate information of what we can really do to prevent or cure eclampsia because, with few exceptions, the cases are neglected until they are seized with convulsions, and by the time they reach the different clinics those institutions can hardly be held responsible for the results. I dare say that most of the eighty-three eclamptic women whose lungs Schmorl examined would be alive had they entered Olshausen's clinic on the day they found themselves pregnant, for there is no doubt about our ability to prevent eclamptic convulsions in most cases, and of our being able to empty the uterus quickly and safely in almost every case in which that indication arises.

The fact, however, remains that about 20 per cent. of all women seized with eclamptic convulsions die, and that the profession at large, and particularly the teachers of obstetrics, are responsible for this deplorable condition. In Germany the majority of women have no care whatever during pregnancy, or at least only such as an ignorant midwife can bestow. In this country conditions are very much better, but they are far from what they should be, and the number of women who place themselves under the care of a practitioner early in pregnancy and who are closely watched, and whose urine is regularly examined, forms only a small percentage of all the cases of pregnancy. To improve these conditions is the duty of governments and of state boards of health.

Another factor that is responsible for the bad general results is that teachers and advocates of modes of treatment do not keep in mind the necessity of gaining their ends with the simplest means possible, such as can be employed by every practitioner and that can be procured in every hamlet.

It is all very well to talk of lumbar puncture, renal decapsulation, Cæsarean section and similar operations as being indicated in special cases and under special surroundings, but such methods can never reduce the general mortality. What is needed is a line of treatment that will meet all conditions as they arise and that will insure prompt and intelligent action on the part of the profession at large.

Let us now consider what means we have for preventing convulsions in

pregnant women and later on we will see what we can do in the cases in which prevention has failed. Pregnant women should not overload their digestive apparatus by eating much more than they really need and they should keep all the organs for elimination of waste material in an ideal condition. That means they should keep their skin clean and active by frequent bathing or washing; they should keep their bowels well regulated and they should drink enough pure water to insure a good daily average amount of urine. The urine should be examined once a month during the first half of pregnancy and once every week during the second half. The moment that small amounts of albumin are noticed the diet should be regulated by excluding meats and eggs and the patient should drink large quantities of water, either carbonated or plain; watery stools should be secured by the use of epsom salts, Hunyadi Janos water or other saline cathartics.

When there is considerable albumin present, with or without cylinders, a strict milk diet as advocated by Tarnier in 1876 should be insisted upon. Such patients live for weeks on milk, water and a few crackers; they ought to drink at least four pints of milk a day and as much more as they can stomach. With the disappearance of the form elements and the reduction of the albumin a modified diet may be substituted. Such cases are under constant observation, the urine is examined daily both as to quantity and quality and as a rule they do well; the albumin may not entirely disappear, but the amount is small and the patients usually go to

full term without becoming eclamptic.

To be sure the albuminuria is not the cause of eclampsia, but it indicates that the oxidation of the nitrogenous waste products is low and that the intermediary products are accumulating in the body. By reducing the quantity of nitrogenous food to a minimum and by assisting the eliminating organs we are working in the right direction.

In many cases a sudden decrease in the amount of urine with an increase in the specific gravity, high vascular tension and severe headache precedes the outbreak of convulsions and gives us a chance to prepare for the catastrophe. The urine under such conditions is very scant; specific gravity 1040 and more and the amount of albumin and foreign elements it contains is enormous.

Such a patient should be put in wet packs in order to produce profuse perspiration, she should be freely purged and the arterial tension reduced by tincture of veratrum viride or better, by venesection. If possible she should be removed to a hospital, otherwise a medical man should remain on guard with her ready to act the moment convulsions set in.

With the first convulsion the patient should receive one-half grain of morphia hypodermically and one-sixth of a grain after every subsequent convulsion, provided that there is still reasonable kidney activity. When the secretion of urine is suppressed the woman should be delivered at once, no matter what period of pregnancy she is in. She is chloroformed, placed on an operating table and the closed cervix made to fully dilate in a very few minutes by one

of three means, according to the nature of the cervix and the ability or the equipment of the physician.

In multiparæ, and even in some primiparæ, the cervix may be found open and yielding. In that case the human hand is the one instrument which is always at command, and it should complete the dilatation until the canal is wide enough for delivery. In other cases steel dilators of any kind may be used until a sufficient degree of dilatation is reached for the passage of one finger. Bossi's dilator in three well-selected cases has enabled me to dilate at maximum within from five to ten minutes without causing tearing of the cervix. In cases of rigidity of the cervix incisions with knife or scissors will overcome the difficulty, and even in the most stubborn cases the splitting of the entire cervix anteriorly and posteriorly after Duehrsen's method will enable us to deliver quickly and safely and with no need for other instruments than such as ought to be found in every obstetrical satchel.

When the convulsions occur during labor we may use morphine as above mentioned or chloral hydrate per rectum or chloroform inhalations, and we should deliver the woman as soon as dilatation is complete. In severe cases we should force dilatation by the above-mentioned methods. It is important that the patient be deeply chloroformed when the fetal head reaches the floor of the pelvis, and that delivery, removal of the placenta and repairing of perineal tears should be accomplished under deep narcosis; otherwise the pain and the fright of the patient are sufficient to precipitate new attacks. In removing the pla-

centa a moderate hemorrhage should be encouraged, as this may render a venesection later on unnecessary.

Convulsions continuing after delivery or developing at that time should also be treated by the free use of morphia, supplemented by chloroform inhalations and chloral hydrate for controlling the attacks; the eliminating organs should be set to work by saline cathartics and the stimulation of skin and kidney activity; where the arterial pressure is very high venesection may be resorted to, or Norwood's tincture of *veratrum viride* in doses of fifteen to twenty minims may be given hypodermatically.

There is no doubt that by prompt and systematic treatment and action a good many cases might be saved that are now lost, for it is well understood that as a general rule the prognosis gets worse with the number of attacks. On the other hand, we must admit the greatest difference in the severity of cases, and that under present circumstances it is next to impossible for the general practitioner to make his patients submit to the above program, especially as to its preventive part.

In conclusion, I wish to say that in the future we may expect great help in preventing eclampsia from the administration of spermin by insuring the complete oxidation of the nitrogenous waste products, and I believe that the favorable results reported by Nicholson of the use of thyroid extract are due to the presence of katalysator in the extract. This should be a matter of future careful clinical study.

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A NEW HÆMORRHOIDAL CLAMP PERMITTING SUTURE OF SEARED SURFACE BEFORE REMOVAL OF INSTRUMENT.*

BY ROBERT F. AMYX, M. D., of St. Louis.

In presenting an addition or a modification of any instrument which is in common usage, the reason for such a deviation should be made from a study of certain untoward effects which have arisen from the use of the original instrument; therefore an effort will be made to briefly describe the objects which are to be obtained and accomplished with the ordinary clamp which is in use in the clamp and cautery operation for the removal of hæmorrhoids. They are as follows:

The hæmorrhoids should be clamped with sufficient force so that the tissues will be crushed to a degree that will rupture the intima of the veins which make up the hæmorrhoidal zone, and also the arteries which are present, so that the lumen of the blood vessels will be closed sufficiently after the clamp has been removed to resist any ordinary force within them that would be likely to lead to a tearing down of the barrier which has been formed within the vessels.

2. The periphery of the clamped hæmorrhoidal zone is to be removed

and cauterized to within one-eighth of an inch from the surface of the clamp.

These two procedures comprise the two steps which are considered necessary for the complete technique in the operation. It is at this particular part of this operation that the author begs to emphasize the necessity of some kind of an effort to prevent (1) the possibility of early hæmorrhage; (2) the separation of the clamp and cauterized edges of the wound; (3) the occurrence of a wide ulcerating area; (4) late hæmorrhage, which often follows any ulceration of the cauterized portion; (5) after cauterization has been performed, such measures should be employed that will insure a permanent approximation of the clamp and cauterized tissue; (6) this can be best accomplished by sutures which are placed before the removal of the clamps, the sutures being passed down to the point where the clamp exerts its greatest force.

When the clamp is removed there is a relaxation of the crushed tissue. This relaxation often leads to a partial separation of the edges of the wound; this leads to a weakening of the barrier which is within the vessels and

* Read before the St. Louis Medical Society, April 8, 1905.

lying below the line of cauterization.

Consequently, in cases where there is extreme tenesmus following the operation there is oozing of blood from the partially open vessels, and as the pressure in the blood vessel is increased, there ensues a hæmorrhage of a varying degree, often constituting a severe hæmorrhage. Where the pressure is not great, but there is an escape of blood beneath the line of cauterization, there will often be found a small collection of blood under the mucous membrane. This will frequently cause a separation of the cauterized edges, and where severe hæmorrhage does not follow, it opens a field for the possibility for a late one.

The cause of the relaxation which follows the removal of the clamp lies in the slight lateral tension in the walls of the rectum. In instances where the hæmorrhoidal zone is small this lateral tension is practically *nil*, but in cases where the zone which is grasped within the blades of the clamp is one inch or more, the lateral tension becomes an important factor. This is particularly noticeable with large internal hæmorrhoids as well as in those of the external variety. In addition to the relaxation of the tissue, the presence of gas and fecal matter will disturb and often tear open the wounded surfaces. When the cauterized edges are separated, hæmorrhage often follows immediately or within a few hours after the operation. Where this does not occur, the exposed freshly-wounded surfaces become readily infected; a sloughing process follows, which often leads to an ulcer. This process may continue and ulcerate into one

of the arteries or veins at a time remote from the primary operation, varying from seven to sixteen days after operation. Besides the constant danger of hæmorrhage which follows the separation of the edges, there is always a longer period necessary for complete repair of the parts.

With the above mentioned observation in mind, the author has endeavored to add to the ordinary clamp in common use an auxiliary which will accomplish the desired end. It is as follows: Two flat pieces of metal are welded on the upper surface of any ordinary clamp, each half corresponding to the blades of the clamp. The surfaces of the pieces of metal are furrowed at intervals of one-fourth of an inch across each blade of the clamp, and extending the entire length of the blades of the clamp. These furrows, when the clamp is closed, come together and form furrows extending across the face of the clamp, each furrow being one-half inch in length and one-eighth of an inch in depth, and extends down to the original biting portion of the clamp. The sutures can be very easily applied with a small curved needle. It can be either a continuous or an interrupted suture, and should be applied before removing the clamp. The curved needle carrying the suture should be passed down into each furrow, and should be kept in contact with the bottom of the furrow, so that the suture will enclose sufficient tissue in order not to cut through. With this device the clamp and cauterized surface are securely fixed together, so that early hæmorrhage does not occur; it gives a better opportunity for early union, so that

separation of the clamped portion will not follow; ulcerative processes do not follow, and the possibility of late hæmorrhage is limited. The clamp affords all the advantages of any now in use. The auxiliary can be applied to any clamp.

The question may arise whether or not the sutures could be applied on any ordinary clamp without the addition of the above named furrows and obtain the same result? This can be done, but the available tissue above the surface of the clamp does not

allow the needle to pass down to and into the portion on which the greatest force is exerted by the clamp; therefore there would be insufficient tissue for the suture to grasp. The object of the sutures is not only to keep the edges of the wound together, but also to keep the entire clamped and cauterized tissues securely matted together, so that there will be no separation either through any relaxation of the tissues or by being torn apart by the presence of gas or fecal matter.

THE VALUE OF GETTING CERTAIN PATIENTS UP VERY EARLY AFTER LAPAROTOMY.*

BY WILLARD BARTLETT, A. M., M. D., St. Louis.

The idea of letting laparotomy patients up the very next day after operation may seem rather uncanny to one who gives the subject thought for the first time, but it seems to me that the importance of doing something of this kind can, in certain cases, hardly be over estimated. The word "certain" appears in the title of this article and I desire that it be emphasized, for I do not wish to be misunderstood as going to the extreme of permitting all of these sufferers, or indeed a very large number of them, to get out of bed during the early days of their convalescence. It is to be expressly stated that most of my patients remain in bed from eight to fourteen days after the abdomen has been opened, the time varying somewhat with the location, extent and condition of the wound. There was a time when laparotomy patients

were kept in bed for three to six weeks after operation, although the abdomen had been sewn up tightly and although every condition was favorable. But that time is happily long since past as far as I can judge from the practice of most men with whose work I have the honor to be at all familiar. We have all had occasion to note that simple rest in bed undermines the strength of a patient and incapacitates him or her for customary activity for a length of time varying directly in proportion with the length of the confinement. Hence it stands to reason that a patient who finds himself unable to walk about and pursue his customary vocation after having remained on his back for two weeks, will find himself decidedly more helpless if the confinement is extended to six weeks. Indeed, it is distressing to observe the attempts of such individuals to regain their lost muscular vitality. It has been my

* Read at St. Louis Medical Society, March 18, 1905.

experience that the patient who has remained in bed from one to two months commonly takes almost as much more time to regain strength enough to walk or enjoy life. Hence it is a logical conclusion that patients should be let up as early as is consistent with repair, a period which, as I have stated, I find to vary from ten to fourteen days in the average uncomplicated (and hereby is meant non-infected) abdominal wound. Hilton's work on rest and pain revolutionized the surgical practice of his time, but is it not also possible that many were led to go too far in pursuance of the leading idea expressed therein? Apply the principle to a short, median abdominal incision and consider that a patient who is kept in bed for no other reason than that a wound shall heal tightly is profiting by physiologic rest of only an inch or two of abdominal parietes, while all of the vital organs are exposed to a condition which is, to them, pathologic.

Most patients who experience a smooth convalescence become somewhat restive after a few days, ask to have the head elevated, look for some form of amusement with which to pass the time and, indeed, frequently express a desire to get up. But what undesirable consequence of such liberty presents itself first of all for our consideration? It is always the fear of post-operative hernia. Now this undesirable accident has been shown in the great majority of cases to be largely influenced by certain well-known conditions and these are, first of all, an incision improperly made; second, unusual intra-abdominal tension; third, inadequate wound closure,

and fourth, suppuration; all of them dangers which can to a certain extent be obviated.

In making abdominal wounds nowadays we are extremely careful not to divide muscle fibers transversely, or to cut off the nerve supply from muscle masses. Increased intra-abdominal tension after laparotomy can in many instances be successfully combated by getting the patient up early, as I shall prove by citing specific instances later. Abdominal closure needs no detailed discussion here. That subject has almost been exhausted and the surgical world seems to have reached the conclusion that the necessity of haste in completing an operation is the only legitimate excuse for the through-and-through suture. Suppuration of a clean abdominal wound is a condition which we have practically under our control.

Another objection to allowing our patients to sit up early might be the danger of detaching portions of thrombi from pelvic or other large veins; but, indeed, if this danger is to be considered at all then we would have to keep all patients in bed a much longer time than we now do any of them, for we well know that if thrombosis of veins takes place at all, the process of cicatrization is extremely slow. Then my experience with thrombosis has been that it occurs rather late than early in the convalescence of a patient who is in bed after a surgical operation. Hence it would seem natural to forestall any such action by facilitating the venous circulation as is certainly done through muscular activity.

On the other hand, experience has

shown me that certain patients profit greatly by being allowed to get out of bed during the first week of convalescence after abdominal section. I have noted numerous reasons why this is so and in order to make each clearer, shall take the liberty of citing a case which illustrates each of them. Other things being equal, the older the person the earlier he or she should be allowed to get out of bed. We know very well from sad experience in other lines of surgery, for instance in fractures of the thigh, that this is too true. I have seen it exemplified in numerous instances after laparotomy that very old people if allowed to remain upon the back become despondent, lose hope, no longer take an interest in their surroundings and in a general way commence to decline, to say nothing of the various vital functions, which will be considered later.

One of the best evidences of this kind I ever had was in the case of a lady seventy-five years of age on whom I did a gastro-enterostomy for carcinoma of the pylorus on the 2d of October, 1903. The operation was a very short one, requiring but a few moments for its performance with the Murphy button. The patient never vomited after the procedure, did nicely in every particular for the first day or two, then commenced to tire of her fluid nourishment which she had been taking from the first in liberal quantities. At that time I had not given the subject under discussion any attention, and consequently I hardly knew what to do. The patient, however, solved the difficulty for us by begging to be allowed to sit up in a chair by the window, so on the sixth

day, with much trepidation, her wish was granted and from that very moment she commenced to take her food eagerly, her expression changed, all of the vital functions improved and in a short time she was up and around and doing as nicely as could be desired, although the subject of an irremovable cancer of the stomach and almost four score years of age.

Another reason why patients should be placed in a chair two or three days after the abdomen has been opened is the presence of a malignant disease in any of the abdominal organs when the same has progressed too far for radical operation, such patients as Dr. W. J. Mayo has shown, as above mentioned, will never get up if they don't get up early. His custom, which I now invariably follow, is to suture the unyielding structures in the abdominal wall with some non-absorbable material and then treat the abdomen as though it had never been opened. His past experience has shown him that this is the only sure way to get these patients out of the hospital alive. I have very recently had a practical proof of the truth of his statement.

On the 2d of this month (March, 1905), a lady, fifty-six years of age, the subject of a tumor of the splenic flexure, presented herself for operation. Her disease had apparently persisted for about a year and during the last three months she had experienced four attacks of obstruction. She had lost fifteen pounds and was by no means a desirable subject. But I opened the abdomen, found the tumor firmly adherent to surrounding structures and had to content myself with a lateral anastomosis between

the lowest loop of the ileum and the freest portion of the sigmoid flexure. She did only fairly well for three days, there being some persistence of her former partial obstructive symptoms, when at the expiration of that time the whole picture changed in an hour by simply placing her in a chair by the window. Of course she was allowed to sit up but a few minutes the first time and for less than two hours the next day, but from this time there was a complete change in her demeanor, she expressed herself as feeling better in every way, being relieved from the excruciating backache she had had ever since being placed on the operating table. In a few days more she was walking around, and on the thirteenth day after the operation went home, a distance of a hundred miles, without any of the symptoms which she had presented.

Abdominal drainage certainly furnishes us with one of the most vital reasons why the body should be maintained in the vertical posture. Fowler showed us with one stroke how to cut our mortality from peritonitis in two when he taught us to set our patients up after operation to give the pelvis a chance to drain. I cannot better exemplify this than by citing the case of a young man on whom I operated on the 2d of February, 1905. Mr. W., twenty-six years of age, had been operated upon by me and the appendix removed during an acute attack, one week previous to the day mentioned. Then upon the appearance of very positive pelvic symptoms, namely, rectal tenesmus, frequent painful urination, distention, together with a rise in pulse and temperature,

I made a one-inch incision just above the pubes, introduced a rubber drainage tube and immediately placed the patient in a sitting posture, where he was kept for several days, or until every one of the symptoms just mentioned had disappeared. The idea of draining the lower peritoneal segment in this way through a very small incision I have found to give most excellent results where nothing more serious than this symptomatic treatment is to be attempted. I mean by this, of course, that the cause should be the first object of search, if this be not at the expense of the patient's life. A hole just large enough for the introduction of a drainage tube allows no viscera to escape and causes no hernia later.

In this connection a consideration of the pulmonary functions will naturally appeal to anyone. All will grant that many a post-operative hernia could have been avoided if there had appeared a feasible method of improving the circulation in the lungs upon the first evidence of trouble. A patient who serves as a living illustration of what should have been done is Mr. McM., whose appendix I removed in the interval on the 18th of January, in this year. He had a very slight bronchitis when he was operated upon and should not, in the light of subsequent events, have received ether, our usual anesthetic. But he did, and two days later had a lobar pneumonia on the left side below and with this a purulent bronchitis. His respiration was 36, temperature 102° and his pulse 90 at six o'clock in the evening. The next day, however, he was much better and there was scarcely any longer evi-

dence of consolidation. But the bronchitis persisted and his rest was considerably broken by the difficulty in bringing up and expectorating the profuse excretion. So on the sixth day, at his urgent request he was allowed to sit up in a chair and from that time on had not the slightest difficulty of this kind. I have never seen a more grateful patient and under similar circumstances I shall treat one in the same way with the single exception that the treatment will be instituted earlier.

In the same line is the case of Mrs. W., whose gall bladder was removed on the 8th of March just past. The course of her recovery was uneventful up to the third day, when she suddenly complained of great difficulty in getting her breath. There was as yet no rise of temperature or pulse, but knowing the special danger to which these patients are exposed upon whom operation has been done in the vicinity of the diaphragm, she was immediately allowed to sit up, and we were rewarded by the instantaneous disappearance of this single warning symptom. She was instructed to practice deep breathing, her bandage was made as loose as possible around the upper abdomen, and while I cannot say that her life would have been in danger if she had staid flat on her back, still the fact remains that she no longer had any difficulty in getting her breath and has made an absolutely smooth recovery since the moment when she was allowed to sit up.

I have found digestive disturbances after laparotomy to be markedly influenced by allowing the patients to sit up. On the 23d of February last I did a most extensive abdominal hys-

terectomy, with dissection of the ureters, etc., upon a Mrs. B., sixty-two years of age. There was absolutely no loss of blood, and although the extensive dissections necessitated an operation which lasted fully an hour and a half, the patient was all right for the first few days after the procedure. We make it a practice of attempting to nourish all kinds of debilitated patients as soon as possible after every operation, the same day, if they are not vomiting. In this case we were nonplussed by the fact that it was impossible to get this old lady to take a sufficient amount of nutriment fluid as late as the fourth day, hence upon the fifth day we placed her in a chair with the happy result that she at once commenced to take everything that was offered her, expressed herself as being free of the backache for the first time, and began to take a vivid interest in her surroundings. From that time until the present we have experienced no further difficulty with her and she has been up every day.

Another post-operative phenomenon which has been most beneficially influenced by getting the patient up, is vomiting. I did a Murphy button gastroenterostomy for an irremovable carcinoma of the stomach on the 23d of April, 1904, on an elderly man. He was a person who had never been sick in bed, and after the operation he remained extremely restless and continued to vomit just as before, presumably because the opening on the anterior wall of the stomach was too high for perfect drainage as long as the patient maintained a recumbent position. On the second day we washed the old gentleman's stomach out and

sat him up. The change was marvelous. He stopped vomiting and commenced to take fluid, was around his room on the sixth day, out in the garden on the ninth and traveled eighty miles on the train three days later, exemplifying once more what has been taught us about the subjects of malignant disease of the abdominal viscera, namely, get them up early if you want to get them up at all.

Another reason for letting patients get up early after abdominal section (and by this I mean within twenty-four hours) is to facilitate the passage of the urine. This is a matter of the gravest import, and one which has not in my opinion received the general consideration due it. The danger of catheterizing a man (and it is bad enough to catheterize a woman unnecessarily), does not seem to have impressed itself upon the profession generally. I refer, of course, to cystitis and ascending infections of the ureter, and what I say is prompted by bitter experience, because I have seen (but I will state in self-justification that I did not do the work) the most violent pyelitis and pyelonephritis follow the use of the catheter in patients who could not pass the urine after a surgical operation. I cannot do better than to quote the history of a little boy upon whom I operated for inguinal hernia last summer. This child, seven years of age, was absolutely unable to urinate after the procedure, although the bladder was plainly full. We used hot enemata, hot water bags on the abdomen, allowed him to sit up without anything being effected, and finally allowed him to stand up, when he emptied the

bladder spontaneously. I have often found it necessary to repeat this procedure, although I will state that usually after this has been done once or twice the patient experiences no further trouble in passing the urine lying down. But I feel so seriously on the matter that I would permit any of my patients, otherwise in fair condition, to stand up in the effort to void his urine before I would permit him to be catheterized or do it myself.

The matter of emptying the bowels does not generally seem to have been considered sufficient ground for letting a laparotomy patient get up early, but I have found a few instances in which patients remained unrelieved by any other form of treatment. I have in mind a few who, after taking all sorts of cathartics and enemata, were unable to successfully and completely relieve themselves of gas and feces in any other than the sitting posture. I have in mind a young man on whom I did a gall bladder operation on the 2d day of February of this year, who retained enema after enema, vomited one drug after another and then took the bit in his teeth, got upon the commode of his own accord and succeeded in doing what drugs and nurses had been unable to accomplish. Although his gall bladder is draining, and he is naturally not just the kind of man I would like to see sit up, I have permitted him to do so every morning since the operation, and it is only by so doing that the young man has been permitted to live with any degree of comfort. He is the subject of an uncommon amount of gastric and intestinal fermentation, and unless he can sit up seems unable to relieve himself.

This brings us back to the subject of increased intra-abdominal tension. This was early stated to be due, in most instances, to accumulations of gas within the hollow viscera, or to the patients' efforts to empty hollow viscera through the mouth, anus or urethra (aside, of course, from all solid and fluid collections within the abdominal cavity). Now, there can be no doubt that we predispose a patient to hernia every time we allow the intra-abdominal tension to be increased, consequently I believe we do him less harm by allowing the weight of normal viscera to come against the abdominal wound in the sitting posture than we do by allowing the distended viscera to press upon it with the patient lying down.

When such patients are allowed to sit up they are, of course, protected as far as lies in our power by adhesive straps and binders. In some instances, as where the chief thing is to enable the patient to breathe, no retentive dressing is used on the upper abdomen. Here we prefer to put all the strain on the stitches rather than to risk a pulmonary complication.

With the possibility in mind that the patient may assume the erect position very early after operation, the surgeon will very naturally give his first care to the proper closure of his wounds. We close every abdomen with non-absorbable suture material; that is, non-absorbable material reinforces layer sutures of catgut in benign cases, and non-absorbable material alone is used in malignant cases. In the first class of patients we close all the layers sepa-

ately with catgut except the skin, which is sewn with horsehair, or approximately with wound clips, and, in addition to this, two or three heavy tension sutures of silkworm gut are passed through all the layers and left in place for about two weeks. We place no dependence upon the lasting qualities of any kind of absorbable material, since numerous cases are on record where all of them used alone have failed the operator and the abdomen burst open of its own accord. What has just been said does not, of course, apply to the gridiron incision. Where operations are done for malignant diseases, we close everything *en masse*, except the skin, with heavy silk or linen, these being permanently left in place, and over them the skin is closed with clips, the entire procedure being calculated to subserve the principle of rapid operating in these depleted patients.

With wounds closed in either of the ways just detailed, it is impossible for the abdomen to come open of its own accord, no matter what the patient does. As far as the possibility of hernia following such radical treatment instituted in the first few days after a laparotomy is concerned, I am not prepared to state that it can never occur. I am willing to grant that most of the cases I have quoted are very recent, but still a few of them run back a year or two. But granting the possibility of a hernia, I believe all will agree with me that a live patient out of the hospital is decidedly preferable to a dead one with a perfectly united wound.

REPORT OF A CASE OF STRANGULATED UMBILICAL HERNIA IN WHICH CECUM, APPENDIX, ASCENDING AND TRANSVERSE COLON WERE FOUND GANGRENOUS IN SAC—ARTIFICIAL ANUS MADE AT PRIMARY OPERATION, FOLLOWED TEN WEEKS LATER BY DOUBLE RESECTION TO RESTORE INTESTINAL CONTINUITY.

By JOHN YOUNG BROWN, M. D.,

Superintendent and Surgeon in Charge St. Louis City Hospital, St. Louis, Missouri.

Until Mayo devised his vertical overlapping operation, the surgery of large, uncomplicated umbilical hernia was far from satisfactory. In view of the high mortality in uncomplicated cases of this character, the following complicated case is of great interest:

Mattie T., the patient I wish to show you, was admitted to the St. Louis City Hospital March 7, 1904. She is forty-seven years old, married, mother of ten children. Family history good. Fourteen years prior to admission she noticed, after her first confinement, a protrusion at the umbilical ring. With each succeeding pregnancy the hernia grew larger. It gave her little trouble, and, with the aid of an abdominal binder, which she wore continually, she suffered comparatively no inconvenience. Eighteen hours before coming to the hospital she was seized with great pain, vomiting and the usual symptoms of strangulation. A physician was called, who attempted forcible taxis. Failing in this, the usual hot packs were applied. She grew worse, as a natural sequence of this treatment, and when seen by me at 7 P. M., I found the following:

A large, oval umbilical hernia, the size of an adult's head, tightly constricted at its base. The skin over the hernia was blistered from the hot applications used, and the general

condition of the patient was bad. She was immediately prepared for operation.

Operation.—Transverse elliptical incisions were made surrounding the umbilicus and hernia; these were deepened to the base of the hernial protrusion, it being my intention to do a radical Mayo operation if conditions permitted. The surfaces of the aponeurotic structure were carefully cleared in all directions from the neck of the sac; the skin covering the sac was dissected back and the sac opened. On opening the sac, five or six ounces of offensive, dark, bloody serum gushed out. The sac was found to contain about two inches of ileum, the appendix, the cecum, ascending and transverse colon, all of which I found black, fetid and gangrenous, the constriction being at the umbilical ring. Without disturbing the adhesions of bowel to peritoneum at the neck of the sac, I split the umbilical ring external to the sac; this relieved the constriction, and I then ran my scissors through the large and small bowel, leaving an artificial anus at the distal end of the ileum, through which gas and fecal matter in large quantities began to flow immediately. A moist dressing was applied, the patient's stomach was washed, and she was returned to bed.

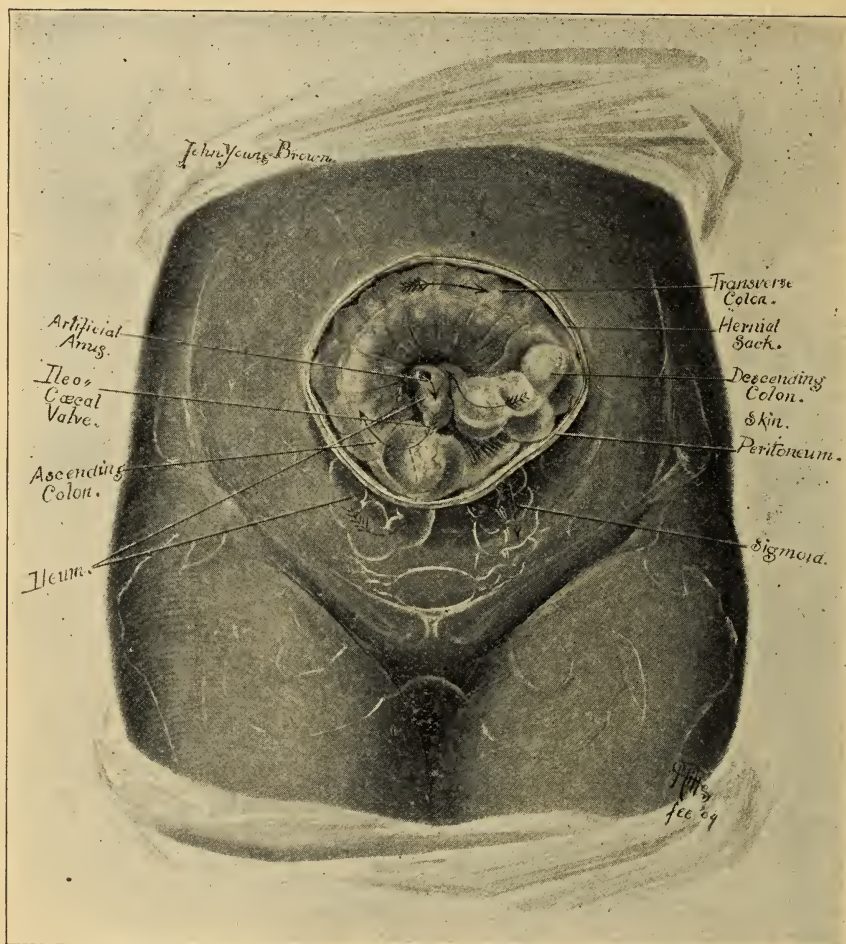


FIG. 1.

Figure 1 shows the contents of the sac. Figure 2 shows the method of relieving the constriction by cutting through the umbilical ring. The patient slowly reacted; the gangrenous bowel gradually came away; the wound contracted, leaving fixed in the umbilical ring the distal end of the ileum, through which was discharged fecal matter, and the opening which marked the beginning of the descending colon. This is shown in

Figure 3. From this cut it will be seen that the descending colon, sigmoid and rectum were entirely out of commission; through a rectal tube a through-and-through irrigation of rectum, sigmoid and colon could be made out, the irrigating fluid flowing freely from below upward and out through the opening in the colon at the umbilicus.

Ten weeks after the primary operation I restored the intestinal continu-

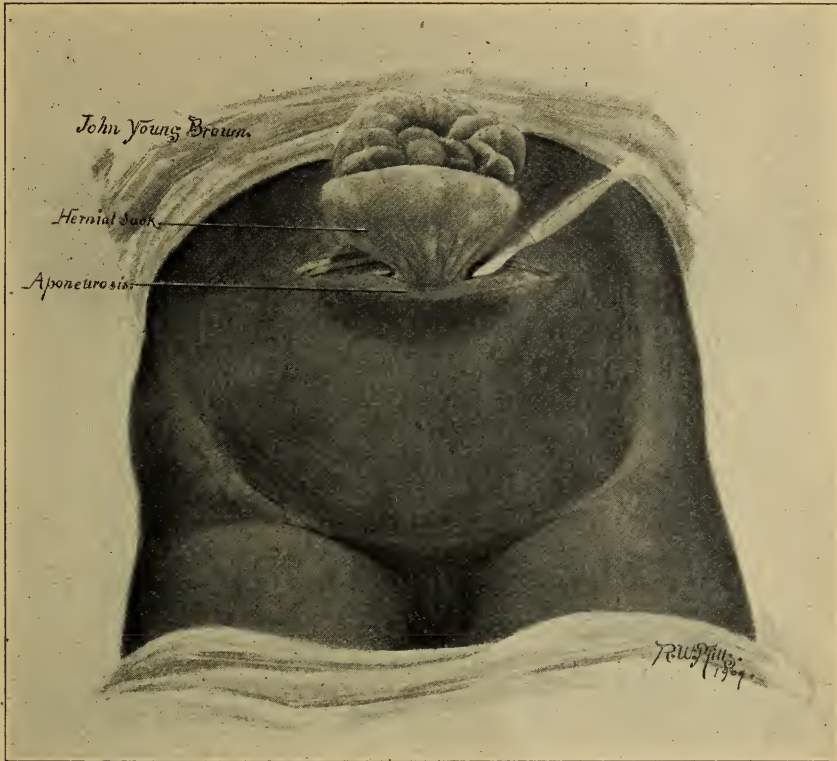


FIG. 2.

ity as follows: Owing to the large stump of mesentery fixed in ring, I did not deem it advisable to attempt a direct anastomosis by liberating adhesions and resecting at the hernial site. I, therefore, after carefully cleansing and sealing the two openings of bowel at the umbilical ring with gauze and collodion, opened the abdomen below the umbilicus through a median incision. The ileum was resected close up to its attachment to the ring, the portion of bowel distal to the bowel incision was closed with a pursestring suture, reinforced by a few Lembert stitches; the colon was then resected at its juncture with the sigmoid; the upper colon was then

closed in the same manner as was the ileum. An end-to-end anastomosis was then made between ileum and sigmoid, the anastomosis being done with the Murphy button. The abdomen was closed in layers. The materials used for closure were catgut for peritoneum, muscle and fascia; retention suture of silkworm for skin, fascia and muscle; horsehair for skin. An examination of Figure 3 will show the condition of the viscera after the completion of the anastomosis. Note the pouch of ileum and descending colon, shown by dotted lines. The patient made an early convalescence after this operation. The rectum, which had been out of commission for

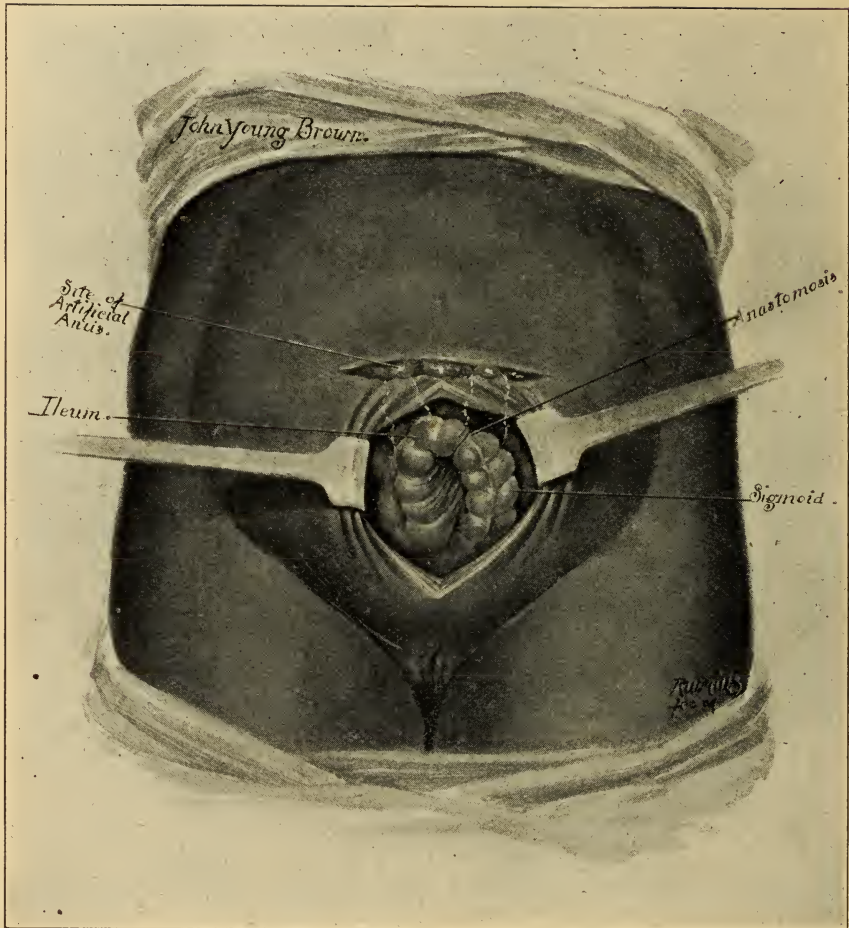


FIG. 3.

so long, took up its work in twelve hours. The button was passed on the nineteenth day.

At the completion of the second operation there were left the two blind pouches of bowel to be looked after. Cut No. 3 shows the pouches of ileum and colon, the dotted line marking the gut. I assumed that nature would evert these pouches, and that they could be removed later. I, therefore, sent the patient home for a month, at the end of which time she returned.

As expected, the bowel on both sides had turned "inside out." The bottom of either pouch was seized with a forcep and the gut clamped and removed. The result was excellent, and there is now left only a small amount of mucosa, which can readily be removed with cauter or carbolic acid.

This case brings up a number of interesting points in regard to the surgical treatment of hernia. First in importance is the question of the management of bowel of doubtful integ-

ity found in a hernial sac. I am convinced that in all cases where it is possible, primary resection should be done. Recently I have operated on five cases of strangulated hernia, three inguinal and two femoral. In all of these, primary resection was done for gangrenous bowel through a supplementary abdominal incision, followed by a radical operation at the hernial site. Of the five cases four recovered and one died. The anastomosis was made end-to-end in each case, and with the button.

The supplementary incision affords many advantages over the old method

of resecting at the hernial site, and, while I am well aware that serious theoretical objections can be offered to it, the results I have obtained speak eloquently in its favor. I shall shortly present this work in full.

Regarding the radical operation for umbilical hernia, until I adopted the Mayo method, my mortality was high, my patients not dying from sepsis, but from post-operative respiratory complications. Within the last year I have done the vertical overlapping operation nine times with perfect results and no mortality.

CERTIFIED MILK IN ST. LOUIS—RULES AND REGULATIONS
GOVERNING THE PRODUCTION AND DISTRIBUTION OF
CERTIFIED MILK IN ST. LOUIS UNDER THE
AUSPICES OF THE ST. LOUIS PURE
MILK COMMISSION.

CIRCULAR LETTER TO DAIRYMEN.

The St. Louis Pure Milk Commission, a corporation, which has for its object the reduction of the death rate in children, desires, in pursuance of this aim, to encourage the production of the highest grade of milk. To this end it has drawn up a set of rules for the operation of dairies and standards of excellence of milk and cream. These requirements have grown out of the experience of dairymen who have produced this high grade of milk under the supervision of commissions similar to this one in other cities. They contain only necessary and tried regulations, which have been shown to be practicable. They are set forth in the enclosed circular.

If you do not wish to avail yourself

of this opportunity to have your dairy and its products examined, the commission does nothing prejudicial to your interests. The experience of dairymen under milk commissions in other cities has shown, however, that it is to the advantage of the better class of milk producers to have the excellence of their milk certified to by a commission composed of citizens not financially interested in any dairy, but simply anxious to improve the health of children and persons in delicate condition who depend on good milk for their welfare.

In order to defray the expenses which the commission will incur (such as cost of printing certificates, cost of making examinations, cost of inserting notices in daily and medical papers), we will charge the producer 1

per cent. of the gross receipts for the milk and cream to which we certify. This will amount to about one mill per quart of milk, and will not appreciably affect the cost of this milk to the consumer.

Any excess over expenses which the commission may receive in this way will be used in dispensing modified milk to poor infants.

It is obvious that these requirements can only be fulfilled by farmers and dairymen who have their own dairies, so that everything shall be under their *direct* control. We will, however, permit the dairy-farmer to distribute his milk to customers through an agent in the city, provided such agent makes a contract with the commission which will insure his furnishing only certified milk to customers who order such milk.

This agent's contract shall also embody requirements for the manner of receiving, storing and delivering to consumers certified milk so as to safeguard the continued purity and cleanliness and low content of micro-organisms of such milk. If such agent sells ordinary market milk also, he shall give bond in the amount of five hundred dollars, which he shall agree to forfeit if it is proven to the satisfaction of a quorum of the board of directors of the St. Louis Pure Milk Commission that he has in any sale substituted ordinary milk for certified milk. His contract as agent for certified milk shall also become void if he violates in any way the city ordinances regulating the sale of milk and cream either in handling certified or ordinary milk.

We know that there is a desire

among medical men and the intelligent community for an absolutely trustworthy milk, which will create a demand for milk thus certified at a price which will make it profitable for you to produce such milk.

President of the St. Louis
Pure Milk Commission.

CIRCULAR OF INFORMATION CONCERN-
ING THE REQUIREMENTS OF THE ST.
LOUIS PURE MILK COMMISSION FOR
"CERTIFIED MILK."

The following requirements were drawn up by the "committee on certification" of the St. Louis Pure Milk Commission, a society and corporation which was organized for the purpose of reducing the infant mortality in St. Louis. The commission offers those dairymen complying with these requirements the use of caps on their bottles bearing the words "Certified by the St. Louis Pure Milk Commission." It also publishes in the daily papers a monthly list of the dealers whose milk it certifies, together with a condensed statement of the requirements which such milk must meet. Furthermore it allows those who avail themselves of this opportunity to have their milk certified to distribute the following certificate with each bottle sold:

"St. Louis Pure Milk Commission.
Milk Commission Certificate.

Date _____

Milk or cream from the _____
of _____ has been recently
examined by the experts of the com-
mission and found to be up to the re-
quired standards of excellence. An-
other examination is to be made within
a month, and, if satisfactory, new

labels for the bottles will be issued, dated _____.

(Notice the date.)
St. Louis Pure Milk Commission.”

It also allows producers of certified milk to distribute copies of their contracts with us, embodying our requirements, as advertising matter.

Before drawing up these requirements the “committee on certification” made a careful study of the requirements of all similar commissions in other cities. It corresponded with those commissions with regard to the success of such requirements, and asked for recommendations in the light of their past experience. It delegated one of its members to visit certified dairies near other cities and confer with dairymen who are pro-

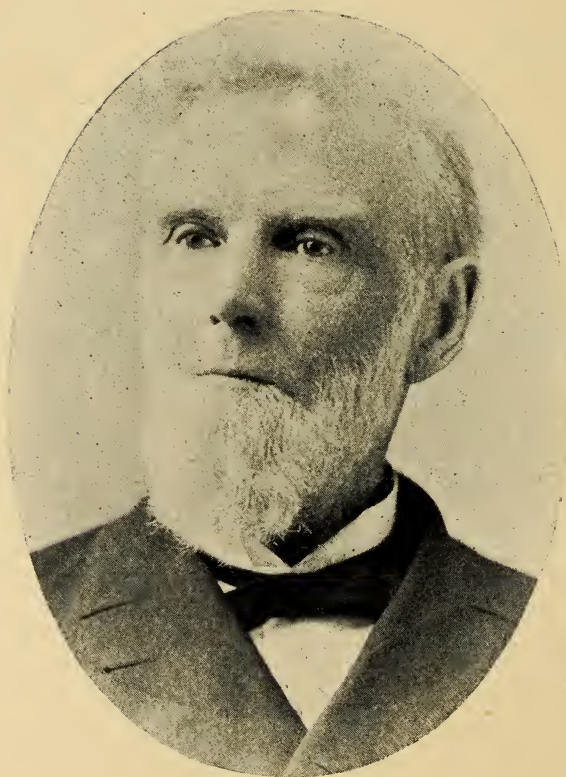
ducing “certified milk” under the supervision of milk commissions in other cities. The following requirements contain no requirements which have not been tried and found practicable.

The “committee on certification” of the St. Louis Pure Milk Commission is composed of members of the board of directors of the St. Louis Pure Milk Commission and of physicians (many of them specialists on the treatment of diseases of infants), who were delegated to represent various medical societies of St. Louis.

The personnel of the committee is as follows:

Board of Directors of the St. Louis
Pure Milk Commission.

[TO BE CONTINUED.]”



WILLIAM M. MCPHEETERS, M. D.

Born, Raleigh, N. C., December 3, 1815. Died, St. Louis, March 15, 1905.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

Meeting of March 25, 1905.

IN MEMORIAM.—DR. WILLIAM M. MCPHEETERS.

DR. WILLIAM M. MCPHEETERS.

IN MEMORIAM REPORT OF SPECIAL COMMITTEE OF ST. LOUIS MEDICAL SOCIETY.

Dr. LeGrand Atwood, Presiding.

This society, bereft of its esteemed and oldest colleague, would here attest its grief and record its appreciation of his integrity, professional ability, kindly personal character and usefulness as one of the pioneers of organized fraternal medicine in this city, state and country.

We tender to the bereaved family of our deceased brother, the sympathy of colleagues who knew him long and well, with high personal and fraternal regard. Through all his long life of four score years and ten he bore himself commendably, as the record of his length of days approve, through childhood, youth, early manhood, middle manhood and advanced years, as worthy of approbation in every stage of his life's action. He had always high ideals of unselfish usefulness to the world, of moral obligation to his Creator and duty to his profession. His standing as a physician was high and above reproach. For over sixty years this community felt the uplifting influence of his kindly heart, useful brain and helpful, ministering hand in the several aspects of his life as a man, a physician and splendid citizen. Born in Raleigh, North Carolina, he received his literary education in North Carolina,

and his medical education was completed in the old Jefferson Medical College and in the hospitals of Philadelphia. Sixty-two years ago he was made professor of clinical medicine and pathological anatomy, later taking the chair of materia medica in the St. Louis Medical College, now a department of Washington University. Fifty years ago he became associate editor with Dr. M. L. Linton, a deceased member and ex-president of this society, of the *St. Louis Medical and Surgical Journal*, still flourishing among the medical monthlies of this city. While an interne in the Philadelphia Hospital, in conjunction with Dr. Kane, afterward famous as the greatest Arctic explorer, he made many original researches to establish the value of kyestein in the urine as a diagnostic factor in early pregnancy.

His record as a physician in the most critical time in the medical history of St. Louis, during the fearful cholera epidemic of 1849-50, was most faithful and creditable, as it was before, and has ever been since in all the great medical crises of the city, and as it was in the Confederate army when, true to convictions of political and professional duty, he went with the South, and was honored with the selection of chief of staff to Generals

Price and Pemberton. Just before the outbreak of the war Dr. McPheeters was the physician-in-chief of the Marine Hospital in this city, a position he filled throughout his term with efficiency and acceptability to the government.

In his church relations, in his official relations, as a plain citizen, as medical editor, as husband, father, physician, friend, he was always true and capable to the right demand of every relation and to every duty. His life was fruitful; his end was peace. The memory of his good example abides for emulation and memorial honor after length of days and goodness of deeds prolonged far beyond the ordinary allotted span of life.

Your committee, in selecting members to lead in remarks upon our deceased brother, have decided upon the following names, coming to our minds at the time of our meeting as having been nearest to or most famil-

iar with his professional life. There are probably others who ought especially to be called upon to express themselves, and yet others who should speak:

Dr. J. M. Scott, a former faculty colleague, is suggested as one suitable to speak of "Dr. McPheeters as a Physician and Man."

Dr. LeGrand Atwood on "Early Recollections of Dr. McPheeters."

Dr. P. G. Robinson on "Dr. McPheeters as Colleague and Friend."

Dr. C. H. Hughes on "Dr. McPheeters as Preceptor and Teacher."

Dr. F. J. Lutz on "Dr. McPheeters as the Father of Organized Medicine."

Dr. Joseph Grindon on "The Lessons of Dr. McPheeters' Life."

CHARLES H. HUGHES,
Chairman.

JOHN J. MILLER,
LOUIS C. BOISLINIERE,
Committee.

EARLY RECOLLECTIONS OF DR. MCPHEETERS.

BY DR. LE GRAND ATWOOD.

The remarks of others delivered this evening in memory of our beloved professional brother have been so comprehensive and deservedly eulogistic, that it seems almost impossible to offer additional tribute to a character so elevated and refined as was his.

The well-known adage, "in speaking of the dead, so fold your discourses that while their virtues are outwardly shown, their vices are hidden within," would seem inapplicable to Dr. McPheeters, inasmuch as, under critical observation for more than

sixty years, he has deserved no word of censure; and, fold as we may the record he has made, there shall appear thereon only a history of virtues illustrating a most exemplary life.

The doctor arrived at St. Louis in the year 1841, and immediately obtained recognition at the hands of his professional brethren, among whom he soon took rank as a man of exceptional ability. Shortly afterward he accepted a professorship in the medical department of the St. Louis University, and continued to discharge the onerous duties of that position

with credit to himself and benefit to the thousands of students who have listened to his lectures.

It was in 1846 that I first had the pleasure of listening to him in debate. The discussion was before this society, in the basement of the Reformed Presbyterian Church at the northeast corner of Broadway and Locust street, where its sessions were then held, and the participants were Dr. J. B. Johnson, Dr. Adam Hammer and Dr. McPheeters. It was upon an important surgical malady, conducted with spirit and exhibitions of ability worthy of similar discussions in the present advanced state of surgical science.

Twenty years ago the St. Louis Medical Society, acting upon a resolution offered by Dr. F. J. Lutz, appointed a committee (composed of that gentleman, Dr. McPheeters and myself) to take such action as would tend to secure, by purchase, a permanent home for the society and its library, and to raise the necessary funds by subscription from its members and others to pay for the same. The recollections of the interest displayed and the energy exhibited by Dr. McPheeters in behalf of this commendable object was characteristic of him in all things appertaining to the welfare of the profession.

In 1886 the American Medical Association convened in this city, and for the purpose of royally entertaining that great representative body the local profession and interested citizens, together, subscribed \$7,000, of which large sum \$5,000 was judiciously expended for legitimate purposes, leaving in the hands of the committee of arrangements an unex-

pected balance of \$2,000. As it was manifestly impossible to make an equitable return of this money to the many subscribers, the opinions of those most largely contributing were obtained, and coincided in the expression of a desire that the surplus should be devoted to some purely professional purpose. Accordingly, a proposition having in view the purchase of a permanent home for the society was presented and promptly rejected by the committee, which decided to contribute the funds for the purpose of entertaining the President of the United States, who was about to honor our city with his presence. Dr. McPheeters with two others bitterly opposed the proposition, and used every possible endeavor to save to the profession as a nucleus the amount mentioned, which, he asserted, would soon enable the society as a representative body to acquire centrally located property for the use and benefit of all local medical associations operating under the provisions of the American Code of Ethics. Though the strenuous efforts of the society's committee and of those opposing the action of the committee of arrangements proved abortive, they may well have incited to later and more successful endeavors culminating in the possession of its present magnificent quarters.

Nothing in the career of Dr. McPheeters so clearly demonstrates his admirable character as the sentiments to which he gave utterance and the conduct he displayed at a time which subjected his manhood to the severest test. Speaking of the trying circumstances which then surrounded him, he said:

"By birth as well as from choice and deep conviction of duty, my lot was cast with the Southern Confederacy, which I endeavored faithfully to serve in the capacity of surgeon in the army. While this is true, candor compels me to say that, not being a military man, I would not have felt called on to leave home and family and occupation had I been permitted to remain in the peaceful pursuit of my calling; but with my well-known southern proclivities, the alternative was forced upon me either to take an oath which I could not conscientiously take, go to prison, or go south. Under these circumstances I unhesitatingly chose the latter, ran the blockade, and in the early summer of 1862 joined the southern army. I have always believed that the authorities of the United States made a great mistake in the character of the oath exacted of those suspected of southern affiliation. It is indisputably true that every government has the right to require of all those living under its protection, not only to observe its laws, but also that they refrain from doing anything prejudicial to its interest. An oath of this character I might have taken, but when I was requested solemnly to swear that I did not *sympathize* with my kindred and friends on the other side of the line, I was simply asked to perjure myself—which, of course, I could not do. Loyalty is a thing of heart, and no man was ever yet made truly loyal to any cause by forcing on him an unwritten oath. All oaths, therefore, as well as all laws which go beyond the *overt act* and seek to pry into and control the feelings and affections of

the individual, are inquisitorial and oppressive."

After referring to the death of General Albert Sidney Johnston by not having a surgeon with him on the battlefield, when he was wounded, who might easily have arrested the hemorrhage from which he died, he said to General Price on the day before the battle of Helena, that "to prevent such a disaster to him, if he had no objection, he would accompany him on the field on the morrow." His reply was, "Doctor, I would be very glad if you would do so." "I did not then realize, as I did afterwards when the whiz of the Minie ball and the shower of shot and shell reminded me of it, the extreme peril of the position I had voluntarily assumed; but my offer having been accepted, I remained with him during the hottest fight."

Returning to St. Louis at the close of the war he resumed his professional and other duties, exhibiting always the possession of those sterling qualities which distinguished him in every relation of life. More than twenty-five years after his return from active duty in the field, he expressed himself as antagonistic to a perpetuation of hostile feeling on the part of beligerants of either side, in the following beautiful and patriotic words: "It is high time all the asperities of the conflict—everything calculated to engender strife and alienation—should be forgotten, buried in the oblivion of the past, that nothing may interpose to prevent the once dissevered parts of our beloved country, like so many kindred drops, to be mingled into one grand, harmonious whole,

never again to be rent by civil feuds nor drenched in fraternal blood."

Recollections of Dr. McPheeters would be sadly incomplete did not they refer to his always manifest love of Christianity and devotion to his church. Without parading his unbounded faith in Biblical teaching, he never failed to exemplify his profound belief therein by his daily walk and conversation. As an instance illustrative of his courage in upholding accepted religious doctrine, it appears that upon returning from Bellefontaine after the interment of a member of the society, he quietly listened to an earnest advocacy of Darwinism as it relates to the origin of man, and when his three carriage companions had enthusiastically endorsed the theory, he indignantly exclaimed: "Gentlemen, I am surprised to hear such views expressed by you. The Darwinian theory is silly; there is but one true account, and that comes from the Maker, and is contained in the First Book of Genesis. It is the only authentic account, and there is no sense and no propriety in rejecting it." Upon another occasion during a Moody and Sankey revival an invitation was extended to those present,

who desired to receive further religious instructions, to assemble in a rear room with others, a handsome and well attired young man availed himself of the invitation. A lady, within hearing of the doctor, asked the supposed inquirer if he desired to be talked with, whereupon he gave a negative reply and declared that religion was "only for persons of weak mind." This answer aroused the doctor, who quickly said: "If your heart were as weak as your brain, you would have been a Christian long ago," and afterwards refused to retract the remark, alleging that it was true, though, perhaps, delivered rather abruptly.

In all the relations of life, whether public or private, his example commanded admiration, and is worthy of emulation.

As we turned from his grave in beautiful Bellefontaine memories of his manifold virtues and excellencies crowded upon me, and I thought that if his faith was well founded, his was now "the spirit of a just man made perfect," and that already he had heard the welcome, "Well done thou good and faithful servant."

DR. MCPHEETERS, THE COLLEAGUE AND FRIEND.

By P. G. ROBINSON, M. D.

I wish to say a few words in respect to the memory of our departed friend, who for so many years has occupied a conspicuous position in our midst, and has ever commanded our sincere regard; yea, more than this, our admiration. The nobility of his character has been so well known in this

community, not only by his fellows in the profession, but equally by the large number of patients to whom his cares have been given, that it is almost a work of supererogation to say anything in praise or to add my encomium to those already made in honor and remembrance of the dis-

tinguished virtues of our departed friend. It is mainly as a colleague and associate in teaching that I would speak in memory of Dr. McPheeters.

There is no one of the profession now living, I believe, who was so long and continuously associated with him as a teacher of medicine as myself, and hence so well acquainted with his characteristics in that connection. When I came to St. Louis in the fall of 1867, seeking a new field of work, having been impoverished by the fortunes of war, he was the first to greet me; he was the first to extend to me the hand of fellowship and to welcome me to the ranks of the profession; it was through his introduction to the Faculty of the Missouri Medical College, through his influence, that I became a lecturer and soon a professor of clinical medicine in that institution. Thus for

twenty-five years or more I was closely associated with him in doing the best we could for the education of our youth. In all that time our intercourse was most agreeable and harmonious, and of much profit to me.

As a man he was ever amiable and courteous, ever mindful of his obligations, ever thoughtful and considerate of the rights and feelings of others. *Homo sui juris*, he ever controlled himself, and so commanded the esteem and admiration of his colleagues. A gentleman born, one of the old school, endowed with all the virtues a man could have, he lived a long and glorious life; and now, though inexorable death has robbed us of his benign presence, yet his blessed memory still lives, a bright example to those who follow, and a reminder of all that is good and noble in life.

DR. MCPHEETERS, THE PRECEPTOR AND TEACHER.

BY DR. C. H. HUGHES.

I certainly cannot forego making a few remarks in this connection. The theme to which I speak carries me back to the time when I came to this city with a letter of introduction from a colleague of Dr. McPheeters, after two years of study, to matriculate as a student. The course then covered two years, but my preceptor thought I should study four years, and kept me at it for two years before he allowed me to enter medical college. I then felt for the first time the clasp of his generous, warm hand; felt what it was for a young man to be welcomed in the way that only Dr. McPheeters could give, the world all be-

fore him, not knowing, without the aid of others, how or where to choose. He was then professor of *materia medica* in the St. Louis Medical College. This was in 1857. The remembrance of Dr. McPheeters' counsel, his kindly aid, will abide with me until I, too, shall have been gathered like our dear departed friend, to my fathers.

At the close of the term I was surprised to receive from Dr. McPheeters the most coveted thing that could have come to me at that time. It was a request to become an interne in the United States Marine Hospital, over which he presided. I realized that it would have a great deal to do with my

medical career. He advised me to make excerpts from the *St. Louis Medical Journal*, and I have been more or less of a medical editor ever since.

Dr. McPheeters was so amiable, so gentle, so mild of manner, that everyone did not know how courageous he could be in an emergency. I recall an occasion in that first season of my hospital life, of a patient coming to the hospital with the most intense glossitis I have ever seen, and the first case of the kind I had ever seen. The tongue was three times its ordinary thickness and the whole mouth was filled with its enormous size. Dr. McPheeters said, "Here is a case that must be acted upon immediately." He had a long bistoury in his pocket case, and he had hardly said the word, until he had slit that man's tongue on either side nearly from root to tip. He allowed it to bleed until he felt that the man's life was safe, and then he applied adhesive strips and cold compresses. They did not know of tracheotomy at that time and the cutting was the only thing to do, and as there was no surgeon present he did it promptly and well.

Dr. McPheeters loved to help young men because he felt it was a duty, and because he saw the potentiality of future usefulness in them. There was a galaxy of great men here then—Dr. John B. Johnson, fresh from Boston, and the instruction of Bowdich in physical diagnosis; there was Linton, as brilliant a man as the Mississippi Valley ever saw, and Charles A. Pope, an elegant and scholarly christian gentleman, of whom Chesterfield might have said: he was the "highest style" of man, and Dr. Charles Bois-

liniere, able teacher of obstetrics and gynecology, and Dr. B. J. Watters, the man who conducted the controversy with Carpenter, of London, and who it was said came out the victor, on the question of organic or life force. There was also that forceful lecturer the elder Pallen, and that clear, concise and complete teacher of chemistry, Abram Litton. Dr. McPheeters was associated with all of those men, and although a modest man and less obtrusive than some others, he was equal to any emergency in medicine, and quite as well informed as any of his colleagues. While I was in the hospital I wrote most of the prescriptions Dr. McPheeters prescribed, and the hospital steward allowed me to dispense them. Living in the hospital with him constantly, writing down his prescriptions daily after seeing him make his diagnoses, making up the prescriptions and seeing them administered; that was his idea of making a doctor out of me. I had had a six months' course in pharmacy, that enabled me to see the value of therapeutics, and Dr. McPheeters was renowned for writing the most elegant of prescriptions in his time.

As Dr. Robinson has so well stated so much that I might say myself, I briefly bear record in conclusion to the fact that Dr. McPheeters aided me in these and in other ways on my way to a reasonable success in the medical profession, and under his help and counsel I gratefully recognize the auspicious beginning of

"All that I am
All that I have and can
In my profession."

DR. WILLIAM M. MCPHEETERS AS AN ORGANIZER.

By F. J. LUTZ, M. D.

Immediately after his arrival in this city from Philadelphia, Dr. William McPheeters became a member of the Medical Society of the State of Missouri. This society held a charter from the legislature and was authorized to receive members from any part of the state. As a representative of the society, Dr. McPheeters had attended the Cincinnati meeting of the American Medical Association in the spring of 1850, and found that of the entire profession of the state only a few physicians were in attendance, among them the late Dr. J. B. Johnson. Upon his return from the meeting he introduced the following resolution, which was adopted:

"WHEREAS, In the opinion of the society, the time has arrived when it is both expedient and desirable to unite the medical profession of the state of Missouri for the purposes of mutual improvement and protection; be it therefore,

Resolved: That a committee be appointed to address the regular members of the medical profession throughout the state, notifying them to meet in general convention in the city of St. Louis on Monday, the 4th day of November next, for the purpose of forming a State Medical Association, with auxiliary societies in each town or county in the state."

To carry out this resolution, a committee was appointed, of which Dr. McPheeters was chairman, and it embraced in its membership Dr. J. B. Johnson, S. Gratz Moses, George Engleman and George Pim. This committee issued a circular letter to the

physicians of Missouri, calling upon them "to send from each town, county or district delegates to form an efficient and permanent union of the medical profession for the purposes of mutual improvement and protection." A gratifying number of physicians responded by their presence to the circular letter, for on the 4th of November, 1850, a convention of physicians met in St. Louis and formed a State Medical Association, over which George Pim of St. Louis county, presided. There were about one hundred and fifty delegates present, representing some twenty counties. The activity displayed in this convention by Dr. McPheeters is best illustrated by the motion presented by him for the appointment of a committee from each county represented in the convention to prepare a plan of organization for a State Medical Association. So thoroughly had Dr. McPheeters prepared the ground work of organization, that the committee could, upon the reassembling of the convention on the evening of the same day, report a constitution and by-laws which were based upon the plan of the American Medical Association. The constitution was adopted, and under it Dr. F. G. W. Thomas of Booneville was elected the first president of the association.

How far-sighted Dr. McPheeters was is shown by the following resolution, which the State Association adopted at this meeting and of which he also was the author:

"Resolved: That it be earnestly recommended by the association to the

physicians in each county of the state of Missouri to form themselves into county and district societies to be auxiliary to this association."

But not only as a member of the Medical Society of the State of Missouri was Dr. McPheeters active in organizing the medical profession and taking an active part in all the work that pertained to the accomplishment of this end, but as one of the editors of the *St. Louis Medical and Surgical Journal* he wielded a wide influence by constantly calling attention to the value of the organized profession and by urging the formation of permanent local societies.

When the second convention of the physicians occurred in St. Louis on the 19th, 20th, and 21st of April, 1852, Dr. McPheeters was its presiding officer and the subject of medical reform and its accomplishment by the combined action of the National and State Associations was the theme of his address. In it he dwelled with much eloquence upon the necessity of a thorough organization of the profession and the benefits which would be derived from it, especially as a means for bringing about the much-desired object of medical reform in regard to elevating the standard of medical education.

Perhaps the reviewer of this address, who signs himself "E. H. G.," will, after more than fifty years, be gratified to know that his prediction, that all medical reform cannot come from organization alone, but must be supplemented by legal enactments, has come true as history teaches in this state as well as elsewhere.

We cannot but admire the zeal and enthusiasm with which Dr. McPhee-

ters insisted that out of medical organization would come the highest good to the profession.

Dr. McPheeters had "builded better than he knew." His hopes of an organized profession have been realized, and more than realized, for what was "earnestly recommended" by his resolution, namely: "that physicians form themselves into county and district societies to be auxiliary to the State Medical Association," is now an accomplished fact in seventy counties of this state; and the association over which he presided when its membership was composed of about one hundred and fifty delegates, a large number of whom were from the city of St. Louis, is now a society of almost seventeen hundred physicians.

The St. Louis Medical Society which elected him as its president in 1856 and which he served as treasurer for the year 1858, has increased its membership more than five-fold since Dr. McPheeter's conducted the bi-weekly meetings.

Perhaps nothing which Dr. McPheeters accomplished as a member of the medical profession, not even his exemplary life as a gentlemanly physician, public-spirited and courageous, has left such an impression upon the medical profession of this state as the organization which he so enthusiastically initiated. Even after he had lived beyond the limit allotted by the Psalmist, he took an active interest in everything which concerned the medical profession.

Honored and respected by the people of this city and of the state, he has left an ineffaceable imprint upon the history of medicine in Missouri. His life of activity assures us that in paying his last debt to nature he passed "to where beyond these voices there is peace."

THE LESSON OF DR. MCPHEETERS' LIFE.

BY JOSEPH GRINDON, M. D.

Among the hundreds who each day mingle their dust with that which yesterday they trod, a few live for a time in the memory of their fellows, a time short at the longest, but sufficient to exert an influence on those who remain. "The good" is not "interred with their bones," but persists as a living force. This form of victory over the grave may be achieved not only by the towering intellect, not only by resplendent genius, not only by the masterful will compelling the obedience of thousands, not only by participation in the large affairs of the world, but is also an inheritance of a life lived for simple duty, simple honor, and in simple faith. Such a record does not dazzle, but is a light that shines before men, and is really greater in the benefit it confers than are some others more brilliant and attaining to wider notice.

Such was the life of Dr. McPheeters and such the record he has left. Can we afford to pass lightly over the lesson it contains? Should we not rather inquire into the springs of action which made it possible? Even though the life of man were nothing more than a natural phenomenon, were not the life of a good man at least as worthy of study as are other natural phenomena?

The secret of the life of our late revered friend was that it was lived in accordance with ideals. That which determined each act, from the most lofty to the most commonplace, was not the impulse of the moment, not the fear of the world nor the hope of

its favor, not the expediency of the hour, but a deeper, higher, broader, all-embracing sense of responsibility to himself, to his neighbor and to his Maker. How vast the gulf that separates the mere well-intentioned, amiable individual shaping his course by every taper glimmering from a neighbor's window, from him who unswervingly follows in the direction indicated by one unchanging star! The lofty and unfailing guide of Dr. McPheeters' conduct, was the knowledge and love of the right. This was his one ideal, which found expression mainly in three forms—

And first, because it lay deepest and included all the rest, was his religious ideal. This was expressed in a definite creed, but was best evidenced by his application of its most beautiful teachings to his daily life. His was a practical Christianity founded upon the Golden Rule. In all things he never forgot that he was in the service of his Master, and he sought to serve Him by serving His creatures. The question, "What shall I do to be saved?" and its answer, suggested to him the further question, "What can I do to help others save themselves?"

Second only to his religious zeal was his patriotic ardor. This was also of an eminently practical sort, and led him fearlessly to follow the right as he saw it. Not withdrawing himself from fancied contamination, nor with a cheap sneer at "politics," he held that there is nothing more worthy of the attention of the pure and noble than politics, which he

rightly regarded as a department of ethics. Thus he carried the same high ideals to the campaign meeting and the polling booth, and applied them in his conduct as a strong party man.

And, lastly, was his love for the art of Medicine, his zeal in its practice, and his devotion to its elevated aims and principles, and to the body

which represents them. In these things you can all bear witness he never failed nor grew weary unto the end.

In a word, the lesson of Dr. McPheeters' life is this: that, above and beneath intellect, learning and skill, are the knowledge of the truth and love of it.

DR. WM. M. MCPHEETERS AS AN ARMY MEDICAL OFFICER.

BY DR. J. J. MILLER.

Mr. Henry T. Kent, of this city, in speaking of Dr. McPheeters, said:

"The dominant note which ran through his life was his strong conviction of duty and of steadfastness and courage in its performance. It was this spirit that caused him to make all the sacrifices that he did in his course in the civil war. To a man of the deep convictions of Dr. McPheeters it was impossible to remain neutral in such a crisis. He did not stop to count the cost, but obeyed without faltering the dictates of his conscience and cast his lot with the Confederate cause."

My first recollection of Dr. McPheeters was in January, 1862. He had occupied a chair in the St. Louis Medical College from 1843 to that time—1862. I had sufficiently recovered from accidental wounds received in the discharge of my duty as drill officer in General Harris' division of General Price's army to enable me to get around on crutches, and I then matriculated as a student of medicine in the St. Louis Medical College. It was not my privilege, however, to long enjoy the benefits of Dr. Mc-

Pheeters' instruction. He delivered only a few lectures when he was missed from his accustomed place in the lecture room, and we were told that Dr. McPheeters had resigned his professorship and given up other positions of honor and trust which he held and cast his lot with the Confederates. He went to Richmond, Virginia, and tendered his services to the Confederate government. He was commissioned as surgeon and ordered to report to General Sterling Price, on whose staff he served as medical director and inspector through the greater part of the war, also acting for a short time on the staff of General Churchill. He participated in many campaigns, and was frequently under fire. He was in the battle of Helena with General Price, and afterward was left in charge of the seriously wounded Confederates at the residence of Colonel Allen Polk, near Memphis, Tennessee. I heard the doctor relate the following incident:

While at Colonel Allen Polk's, the doctor was visited by his wife, who took passage at St. Louis on a steamer going south. Aboard were several

Northern ladies going to Vicksburg. They treated Mrs. McPheeters with suspicion and discourtesy until Memphis was reached. There Mrs. U. S. Grant, wife of the general, came aboard. Mrs. Grant, learning that Mrs. McPheeters was the wife of Dr. McPheeters, whom she had known before her marriage, made the remainder of her journey pleasant, and secured Mrs. McPheeters the privilege of an escort and the use of an ambulance to reach her husband in comfort and safety.

It is a well-known fact that Dr. McPheeters was highly efficient in organizing and maintaining the medical arm of the service of the Trans-Mississippi Department, and it is a matter of great regret that in the burning of his trunk, in which his official papers and private diary were kept, we are deprived of authentic data concerning his official acts. He was paroled at Monroe, Louisiana.

That same spirit which carried him into the war, in which he had acquit-

ted himself so nobly, enabled him after the war to take up the thread of life here in his old home, and made him the peer of any and the inferior of none. Dr. McPheeters was a member of Camp St. Louis, 731, U. C. V., and was often heard to express his pleasure and great satisfaction in meeting with his old friends and comrades.

But, while he was a soldier, tried and true, in the cause he had espoused and lost, he was pre-eminently a soldier of the "Cross of Christ." With the relation of the following incident I close :

There was a called meeting of the camp to be held on Wednesday evening, in which the commander urged the attendance of every member. Dr. McPheeters did not attend, but sent his regrets, stating that he had a previous engagement for Wednesday evening for many years. He did not state the nature of the engagement, nor did any inquire. We knew that it was his hour of prayer.

VOLUNTARY TRIBUTES.

DR. B. M. HYPES:—Although having practiced medicine in St. Louis for thirty years, I never had the pleasure of a very intimate acquaintance with Dr. McPheeters. However, his character and his standing in the community as a citizen, as well as his professional standing, was always one that I admired. I do not desire to make extended remarks except to emphasize one point, and that is that within the last year the profession has been called upon to give up some very

bright and shining lights—Dr. J. B. Johnson, Dr. Prewitt, and others whose example we should study, because they were men cultivated, broadly educated, a class of men who lived apparently for the good they could do rather than to gain worldly emoluments. Such men give a high standard to our profession and should ever be remembered and honored.

Dr. George Homan : In considering such a life on an occasion like this I

can feel no sense of grief—one lengthened without manifest decay, so fruitful and well spent.

In the catacombs of Rome is an epitaph or inscription, placed to mark the ashes of an unnamed early martyr, which among many thousands of others compels notice and thought by its simplicity, significance and suggestiveness. In our tongue its meaning would be, "He entered into life." If that was true nearly two thousand

years ago, written of the victim of a time when Christianity was a crime, it must be true to-day; and so it seems to me that this man of whom we speak as having died last week has really entered into life. In the order and appointed course of nature he has entered on a higher sphere of action, and so there can be no reasonable cause of lamentation—rather felicitation.

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NEXT ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION, EXCELSIOR SPRINGS, MAY 16, 17, 18, 1905.

EDITORIAL.

THE PROGRAM.

Elsewhere in this issue will be found the program of the annual meeting of the State Medical Association to be held at Excelsior Springs May 16, 17, 18, 1905. The contrib-

utors are for the most part men who have long been recognized for their ability in special directions.

Such names as Drs. W. E. Fischel, F. J. Lutz, William Porter, B. M. Hypes, L. W. Dallas, A. J. Steele,

H. W. Loeb, Harvey Mudd, W. G. Moore, Bransford Lewis, J. F. Binnie, J. R. Lemen, A. R. Kieffer, C. Lester Hall, Joseph Grinden, W. R. Dorsett, John Zahorsky, R. M. Funkhouser, H. C. Dalton, H. Tuholske, E. H. Miller, Roland Hill, F. B. Hiller, Howard Hill, T. F. Lockwood, E. A. Babler and T. N. Bogart are well known to the profession and promise a most profitable meeting. While the number of papers is limited the list of those who are to open the discussion, each of whom will be provided with a synopsis of the paper they are to discuss, assure the most interesting meeting in the history of the association.

REGULAR IN NAME ONLY.

It may be fitting, in view of the near approach of the meeting of the State Medical Association, to refer to some questionable methods (from an ethical view-point) of some members of affiliating county societies. Since these societies, under the new order of things, are, with their entire membership, a part and parcel of the Missouri State Medical Association, it becomes the duty of the parent organization to see to it that irregularities do not creep in through its integral branches.

Whilst it may be questioned whether in the reorganization of the American Medical Association, the adoption of "The Principles of Medical Ethics" was a distinct ethical advance, it must be admitted that it nowhere grants a license for unprofessional conduct.

The liberalism aimed at in this new *magna charta* for the government of the relations of physicians toward each other or to the public, does not

cut loose all the restraints which have hitherto characterized the actions of honest, cultivated physicians.

The plea of ignorance as to just what is expected of the physician, in dealing with his fellows, or the public, cannot be justified in view of the widespread distribution of the "Principles of Ethics." Indeed, to the honest *gentleman* in the profession, it does not occur to violate those cardinal principles of the ethics of his profession which have come to us dignified by age and conscientious observance of those who have gone before.

We must recognize that all men are not "born equal" in their conception of right and wrong, and that some possess a shocking degree of *forgetfulness* when they *know* better. The spirit of commercialism in this "get-rich-quick" age has invaded our profession, and we find its members brazenly doing things that cast disrepute upon the very name of our calling which should be the synonym of all that is upright and true. Such conduct breeds resentment and our loss of standing in the public eye, and the lowering of professional self-respect.

Without prolonging this article, attention is called to the practice of some members of local societies, and therefore of the State Association, who patronize the advertiser, who, under guise of calling themselves "specialists," occupy conspicuous space and place in the public prints with their disgusting pretensions.

It is incomprehensible, why physicians calling themselves "regular," should overlook the skillful, modest and *decent* surgeon, and take patients and go themselves for operative work to the advertising charlatan who

lowers the standing of a profession which should be above reproach.

These "regular" physicians must know that by such action they encourage and build up a class of professional mountebanks who degrade the very name of our profession.

They must know that they justify and place in the hands of the laity weapons of defense to the disparagement of the honorable, high-toned surgeon and true specialist.

The result is the enrichment of the *disreputable* advertiser and the discouragement of the reputable surgeon.

The foregoing is not written as a "*gentle rebuke*" of these transgressors, but to stimulate summary action on the part of the State Association and County Societies in dealing with men who so far forget themselves and the good name of their profession by lending their influence to its degradation.

C. L. H.

ACCURACY OF DIAGNOSIS.

Perhaps one of our greatest faults as practitioners of medicine is our tendency to underwork our diagnostic abilities. It is not because we do not wish to grant the patient the benefit of our skill, but because, seeing many cases similar in nature, we are apt to make rapid, mistaken comparisons, with resulting false conclusions. The condition of diagnostic apathy is regrettable, because it endangers the habit of "snap" diagnosis—a habit which, once acquired, is not easily shaken off. The busy practitioner may have some excuse for not being able to study his cases carefully; yet it is questionable whether increased, top-heavy business should,

morally at least overshadow the careful, skillful practice of medicine which all patients rightfully demand. To get into the nature of an ailment by a short cut diagnosis is certainly satisfactory when it turns out to be correct; but often grave mistakes are made which are necessarily uncovered by the consultant.

Modern teaching aims at more thoroughness in diagnosis. The advent of the microscope and of the various laboratory tests have stimulated increased work along this line. The practice now followed in the larger medical schools, is a good one. It consists in abolishing lectures in the fourth year and devoting the time to bedside teaching in the different branches, under the guidance of a professor.

Such a course is productive of excellent results, for graduates are turned out who have been trained well to use their senses in acquiring diagnostic acumen. The time should come soon when all of our schools will see fit to adopt a similar method of teaching.

It is too often the case that treatment is instituted in a hap-hazard manner before an accurate diagnosis is made. Such a method of practice is primitive and should be discouraged.

The most successful man in medicine, or any of its branches, is the one who, with keen diagnostic ability, is able to base the management of his cases upon what his senses have taught him.

L. A. T.

Conditions have very materially changed since the largest number of the members of the State Association

were graduated. Constant vigilance is necessary to prevent the commercial spirit from gaining the upper hand in medical matters and with medical men. The commercial doctor is too much in evidence already. His success in accumulating money and in obtaining a competency early in life make him often a conspicuous example and the object of envy of his brethren less inclined, because, perhaps, less able to secure and to hold the "screeching eagle."

There are two extremes; high soaring idealism—deprivation for himself, stinting for his family, neglected education of his children, the one; "work for money," the other. Attention should be called in the state and county society to the golden middle way. The business affairs of medical men should be as thoroughly discussed, at least in the local societies, as should be the treatment and care of those who, because we have allowed them to get the impression that doctors are not business men, never think of us in connection with their obligations.

The already overcrowded curricula of medical colleges need not be additionally burdened by discussions on bookkeeping for the doctor, his method of conducting the business side of his work, but a few practical lectures on these subjects could very well be substituted for the ultra-scientific discussions which are now too frequently hurled at—or rather—over the heads of the already bewildered student.

The danger of swamping the profession by commercialism will be averted if we undertake to guide it along proper channels.

T. F. L.

We are closing up another year's work in organization of the medical profession of Missouri. So far the sailing has been rather smooth. A large per cent. of the profession were ready and willing to do their part. At present we have enrolled about one-third of the regular profession of the state, two-thirds still remaining outside of the organization. This might look a little discouraging to those who are not familiar with the work and plan of organization. Our plan makes the county societies the unit of organization. They are the foundation stones upon which the superstructure rests. Viewed from this standpoint (the true view), and the picture brightens. The figures are reversed and we see two-thirds of the counties organized and affiliated, and only one-third outside of the organization, and many of these unorganized counties are hard to reach, and the few physicians in them widely separated. These counties will have to be districted for a number of years. There are some of the old, well settled counties yet to be organized and affiliated. These old counties would all be in if the councillors of their respective districts would do their full duty and go after them in earnest. I say this advisedly, because I am one of the councillors and have three of these old counties in my district. I was appointed councillor last May at the annual meeting. What has been my record? I let ten months of the year go by without making a single move. I had some very serious sickness in my family, and it still continues, and I have been very busy. Under these conditions it was not hard for me to procrastinate, and this old

thief of time came very near proving my undoing. At the eleventh hour I wrote to the physicians in these counties, setting a date for each county, and telling them I would be in a certain place on a certain day, and asked them to meet me that I might present the plan of organization and affiliation. What were the results? In the first county I met seven men, and after presenting the plan, four of the seven expressed themselves in favor of organization and affiliation, but thought they should have a larger attendance before deciding the matter. They decided on April 11th for this second meeting, and I am going there then, and I am sure we will organize and affiliate. In the second county I had half the physicians of the county present, and they were unanimously in favor of organization and affiliation, and in less than one hour they were organized and affiliated, and filed an application for a charter. In the third and largest county, I had a meeting of three men out of about thirty-five or forty; but these three are going to organize and affiliate the county. I am satisfied that at our meeting at Excelsior Springs my district will be solid. I feel now that I can go to the state meeting without being humiliated by having to apologize for not having tried to do my duty. These counties cannot be organized by writing letters. You have to go after them in person. I feel in regard to them as the negro did about his turkey. He prayed a long time for the Lord to send him a turkey, but his prayer was unavailing. So he changed his prayer and prayed that the Lord would send him after the turkey. This was an availing

prayer; he said he always had turkey after that. W. M.

P. S.—Since writing the above I have organized and affiliated the second county on April 11th. W. M.

NEW MEMBERS.

J. W. Pickel, Crystal City.
 O. E. Hensley, Pevely.
 C. G. Harris, Festus.
 Geo. W. Tidwell, De Soto.
 W. E. Gibson, De Soto.
 H. Will Elders, De Soto.
 A. H. Hamel, De Soto.
 H. S. Prentiss, De Soto.
 F. S. Song, De Soto.
 J. B. Neff, De Soto.
 W. H. Farrar, De Soto.
 W. W. Hull, Sulphur Springs.
 R. E. Donnell, De Soto.
 G. W. N. Elders, Hematite.
 J. F. McNutt, Pevely.
 J. F. Nonnell, Festus.
 Geo. W. Elders, Ware.
 G. M. Mockbee, Hillsboro.
 G. G. Bryan, De Soto.
 G. A. Auerswald, De Soto.
 F. R. Atkins, Greenville.
 W. G. Hughes, Campbell.
 A. E. Marshall, Hornesville.
 J. G. Birchett, Cardwell.
 J. Chaney, Senath.
 J. W. Beall, Malden.
 W. A. Price, Campbell.
 H. E. Beall, Campbell.
 C. May, Campbell.
 Eli Back, Cardwell.
 Hashbrook De Lameter, Kidder, Mo.
 P. S. Fulkerson, Lexington.
 G. W. Fredenald, Lexington.
 J. J. Fulkerson, Lexington.
 J. Q. Cope, Lexington.
 C. T. Ryland, Lexington.
 W. G. Harwood, Dover.
 R. E. L. Hitt, Dover.

J. A. Mann, Wellington.
 F. W. Mann, Wellington.
 W. A. Braecklein, Higginsville.
 R. C. Carter, Higginsville.
 W. A. Blakely, Higginsville.
 W. C. Webb, Higginsville.
 H. Williams, Odessa.
 J. A. Sneider, Concordia.
 J. Perrie, Mayview.
 J. W. Pickel, Crystal City.
 O. E. Hensley, Pevely.
 C. G. Harris, Festus.
 Geo. W. Tidwell, De Soto.
 W. E. Gibson, De Soto.
 H. Will Elders, De Soto.
 A. H. Hamel, De Soto.
 H. S. Prentiss, De Soto.
 F. S. Long, De Soto.
 J. B. Neff, De Soto.
 W. H. Farrar, De Soto.
 W. W. Hull, Sulphur Springs.
 G. A. Anerswald, De Soto.
 R. E. Donnell, De Soto.
 G. W. N. Elders, Hematite.
 J. F. Donnell, Festus.
 Geo. W. Elders, Ware.
 I. N. McNutt, Pevely.
 G. M. Mockbee, Hillsboro.
 Dr. G. G. Bryan, De Soto.
 J. L. Jones, Jonesburg.
 W. W. Wheeler, High Hill.
 J. F. Graves, Montgomery City.
 D. O. Hudson, Montgomery City.
 G. E. Munes, Montgomery City.
 David Nowlin, Montgomery City.
 John Bonewits, Jonesburg.
 W. J. Alexander, Marthasville.
 J. H. Dyer, Warrenton.
 A. W. Graham, Warrenton.
 J. Foreman, Warrenton.
 Geo. F. McKinney, Warrenton.
 E. A. Fluesmeier, Wright City.
 E. G. Mitchell, Wright City.
 James Stewart, Holstein.

John Sturgis, Perrin.
 Ront. W. Rea, Plattsburg.
 P. M. Steckman, Plattsburg.
 S. D. Reynolds, Gower.
 A. Mitchell, Mecca.
 J. C. Starks, Gower.
 R. J. Woods, Trimble.
 E. A. Golley, Plattsburg.
 C. D. Avery, Troy.
 L. Pendleton, Troy.
 W. P. Smith, Troy.
 J. R. McKay, Troy.
 A. M. Taylor, Elesberry.
 E. A. Hicks, Old Monroe.
 J. R. Strickland, Moscow Mills.
 J. H. Parke, Moscow Mills.
 L. E. Tracey, Chillicothe.
 Geo. A. Gordon, Chillicothe.
 J. H. Winter, Utica.
 K. S. Piatt, Chillicothe.
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 W. M. Girdner, Chillicothe.
 Reuben Barney, Chillicothe.
 H. M. Grace, Chillicothe.
 R. W. Murray, Dawn.
 O. L. Alberty, Dawn.
 W. M. Houf, Farmersville.
 F. P. Batdorff, Farmersville.
 E. F. Ogan, Chula.
 G. M. Alexander, Chula.
 J. F. Cherrington, Chillicothe.
 W. L. White, Springhill.
 David Gordon, Chillicothe.
 W. A. Henderson, Chillicothe.
 R. E. Chaffin, Avalon.
 J. W. Trimble, Wheeling.
 Wm. A. Swope, Wheeling.

COUNTY SOCIETY NOTES.

JOHNSON COUNTY MEDICAL SOCIETY.

Dr. M. P. Shy, President.
Dr. E. H. Gilbert, Secretary.

The Johnson County Medical Society met in Warrensville, March 14th, T. L. Bradley in the chair. The morning session was devoted entirely to the business affairs of the society. In the afternoon papers, discussions, and clinical cases occupied the time. Lobar pneumonia, which has been prevalent, was the subject of greatest importance. The society adjourned to meet June 13th, at which time we are promised a number of very interesting papers, the gist of which will appear in our next report. E. H. GILBERT, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. H. C. Tatum, President.
Dr. C. A. Jennings, Secretary.

The regular session of the Chariton County Medical Society was held in Salisbury on March 30, 1905, Dr. Harry Tatum presiding. The society enjoyed a large attendance of members besides several visiting physicians, among whom were Dr. Jabez N. Jackson of Kansas City and Dr. Burton of Kaseyville. They were invited to participate in discussions of papers and clinics. Dr. J. F. Welch presented an interesting and unusual clinic—a case of malarial spleen—from which much valuable information was gathered by all present. The essayists appointed for next meeting were Drs. Jennings and Kirkpatrick. Dr. Burton kindly con-

sented to be present, and read a paper also. The society then adjourned to meet in Salisbury, Mo., April 27th, at 8:30 P. M.

W. L. BAKER, Reporter.

PEMISCOT COUNTY MEDICAL SOCIETY.

Dr. B. D. Crowe, President.
Dr. J. B. Luten, Secretary.

The Pemiscot County Medical Society met in quarterly session Tuesday, April 11th, Dr. B. D. Crowe in the chair. The minutes of the last meeting were read and approved. Dr. C. E. Martin read a paper; subject, "Puerperal Septicaemia," which was discussed by all members present. Dr. Swearingen of Steele, who had not previously attended a meeting of this society, was present and made application for membership. There being no further business the meeting adjourned to the first Tuesday in July. H. T. BYARS, Reporter.

CAMDEN COUNTY MEDICAL SOCIETY.

Dr. Geo. M. Moore, President.
Dr. G. T. Myers, Secretary.

At the regular meeting of the Camden County Medical Society, held at Mack's Creek, April 10th, the attendance was unusually good. Among the visitors present was Dr. R. W. Soper, recently in the army service in the Philippines. The minutes of the previous meeting were read and approved. An interesting case of osteomyelitis was presented by Dr. Moore. Drs. W. G. Claihorn, of Decaturville, W. F. Byler, of Linn Creek, and Geo. A.

Moulder, of Linn Creek, were elected members of the society. Dr. Soper favored the society with an interesting talk on the duties of the army surgeon. The society adjourned to meet in Mack's Creek the second Monday in July.

J. T. MYERS, Reporter.

BATES COUNTY MEDICAL SOCIETY.

Dr. A. E. Lyle, President.

Dr. E. N. Chastain, Secretary.

Dr. J. N. McCormack met a number of physicians of Bates and Cass counties in the court house at Butler, Mo., on the afternoon of April 10, 1905, and delivered a very interesting and practical address on the present condition of the medical profession and the objects and purposes of medical organization.

The great need of organized effort on the part of the physicians in the interests of our profession and the public were so ably presented by the doctor, that all physicians present who were not members of the county organization were induced to join their local county society. The manner in which the doctor presented the true condition of the medical profession, as it is to-day, with the reasons and causes why so many undesirable conditions exist, was so clearly and so forcibly set forth that a deep impression was made upon the minds of all the physicians in attendance. The good work accomplished at this meeting is most gratifying indeed to the physicians of the thirteenth councilor district. Dr. Jabez N. Jackson, president of the Missouri State Medical Association, was present and rendered valuable service in adding new mem-

bers to the county organization. The names of the newly elected members are: Drs. T. C. Boulware, T. F. Lockwood and T. W. Foster of Butler; Dr. E. E. Gilmore of Adrian, Dr. N. L. Whipple of Pleasant Gap, and Dr. S. Miller of Maysburg. Drs. A. E. Lyle, president of the Bates county medical society; E. G. Zey, O. F. Renick of Butler, J. S. Amyx and W. A. Robinson of Amsterdam, H. Jerard and M. Smith of Pleasant Hill, W. F. Chaffin of Raymore, and M. P. Overholser of Harrisonville, were among the physicians who were present. No greater necessity existed in any part of our state for the work Dr. McCormack accomplished at this meeting and no better results could have been achieved.

E. N. CHASTAIN, Reporter.

ST. LOUIS COUNTY MEDICAL SOCIETY.

Dr. W. G. Wyer, President

Dr. H. T. Randle, Secretary.

The St. Louis County Medical Society held its regular monthly meeting on Wednesday, the 12th, the meeting being called to order by the president. The minutes of the previous meeting were read and approved.

Dr. H. G. Wyer tendered his resignation as president of the society, as he found it impossible to attend the meetings, having office hours at his city office in the afternoon. A motion was made by Dr. Moore to change the time of meeting from 2:30 P. M. to 7 P. M., and Dr. Wyer asked to withdraw his resignation. Motion was seconded by Dr. Koch and carried.

Election of Members: The commit-

tee on election and ethics not having reported the names for application, the by-laws were suspended and the names were voted on by the society and accepted. Nine votes being cast, Drs. Hanpeter and Berry were duly elected.

Nominations for Membership: Dr. Koch presented the name of Dr. Bracy, of Wellston, and the same was referred to the committee on election and ethics.

A letter from the secretary of the State Medical Society was read, and members were urged to send in their state dues. The secretary was instructed to notify all members of the change of time of meeting; also to write the ex-treasurer for a statement of last year's accounts and to request that the balance in the treasury be turned over to his successor.

Dr. Wyer suggested that the committee on election and ethics be requested to investigate the fees charged by the Valley Park physicians, members of our society, and stated that they were practicing on the seventy-five-cents-per-month plan, this being contrary to the by-laws of the society, and that they be notified to that effect. The motion was amended by Dr. Higgins—a report to be sent in at the next meeting. Amendment was accepted.

The question of fees for life insurance was brought up by Dr. Reynolds, and the attention of the society was brought to the fact that the minimum fee in the fee bill is \$2.00.

The scientific program was omitted, Dr. Pfister having failed to send in his paper.

The report of a case by Dr. Moore was called for, and a very interesting

account was submitted to the society. The case was that of a married woman in good circumstances, thirty years of age. She had never had any illness in her life except typhoid fever at fifteen years of age, followed by an attack of malaria a few months later. At the birth of a child three years ago she endured strenuous labor. Six weeks ago she passed segments of a tapeworm. Diagnosis was duly made, and treatment resulted in the elimination of a tapeworm fifty feet in length. Following this, a few weeks later, she had difficulty in speech; mouth was drawn to one side, with loss of motion in the arm on same side. The diagnosis in this case was hysterical paresis. The case at this time came under my observation. She complained of pain in the axilla, loss of strength, very nervous and slight temperature. Examination of the chest revealed nothing. She had no cough, no pleural affection, respiration normal; paralysis increased; she had had a chill, and temperature rising. She was put on quinine, as she seemed to have a chill every other day. I tested reflexes, but without result. All reflexes seemed to be good, except in the arm. She complained of pain in the chest, which subsided in a few days. Her appetite was fair, but still the paralysis continued to hemiplegia. She had such symptoms as might result from a shock, but there had been no shock except that resulting from her husband being hurt a few weeks previous to her last illness, and again this was thought to be hysterical paresis, when the eyes became affected. The right pupil was more dilated than the left. The taste was also unbalanced; there was no aphasia. My diagnosis as to

etiology was intra-cerebral tumor or growth. In the history of the case I was unable to obtain any possibility of syphilis either in the husband or the patient. However, I put the patient on prot-iodide of mercury three times a day, as she had been on the same for one week with no effect. Complete hemiplegia remains, but some sensation seems to reappear, the temperature reaching 100 with complete intermission. The patient will be reported on at the next meeting. The case was discussed by members of the society and diagnosis confirmed. Dr. Reynolds suggested that the patient be put on thirty to forty grains of iodide of potassium three times a day.

At the close of the discussion the meeting was adjourned to meet the second Wednesday in May.

H. T. RANDLE, Secretary.

LIVINGSTON COUNTY MEDICAL SOCIETY.

Dr. David Gordon, President.

Dr. J. F. Cherrington, Secretary.

Dr. N. N. Stevens, Treasurer.

The Livingston County Medical Society was organized March 22d with officers as follows: President, David Gordon; first vice-president, W. R. Swope; second vice-president, O. L. Alberty; secretary, J. F. Cherrington; treasurer, N. N. Stevens. On advice from Dr. C. M. Nicholson, secretary of the Missouri State Medical Association, that Dr. J. N. McCormack of Bowling Green, Kentucky, chairman of the Organization Committee of the American Medical Association, would visit us on April 13th, the society adjourned to that date, instructing the secretary to request

every physician in the county to be present. On April 13th the society completed its organization by adopting constitution and by-laws for county societies recommended by the American Medical Association and adopted by the Missouri State Medical Association. The date of meetings was fixed for the third Wednesday at 2 P. M. of each month. The secretary was instructed to order one hundred copies of the by-laws to distribute to the members. The society begins its work under most favorable circumstances, having twenty-seven members out of a possible thirty-seven. After organization the society, together with representatives from Caldwell, Daviess, Linn and Carroll counties, had the pleasure of listening to a most able address by Dr. McCormack. This was followed by short addresses from other physicians of prominence. The society then adjourned to meet at the regular date in May. In the evening the physicians of Chillicothe gave a smoker in the Leeper House parlors in honor of Dr. McCormack.

H. F. CHERRINGTON, Reporter.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

Dr. H. L. Cunningham, President.

Dr. John D. Porterfield, Jr., Secretary.

The Cape Girardeau County Medical Society held its regular meeting at the Commercial Club rooms, Cape Girardeau, April 9th, Dr. H. L. Cunningham presiding. Drs. M. Rosenthal, Wichterich and Schultz were appointed a committee on public health. Dr. John D. Porterfield, Jr., was elected delegate to the state meeting. Dr. M. Rosenthal is to read a paper at the

next meeting. Our society gives promise of being one of the best in the state.

J. D. PORTERFIELD, JR., Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. Robert T. Sloan, President.

Dr. Edward H. Thrailkill, Vice-President

Dr. Max Goldman, Secretary.

Dr. L. W. Luscher, Treasurer.

The Jackson County Medical Society held its regular meeting April 13, 1905, Dr. Robert T. Sloan in the chair. There was no meeting of this society on March 23d on account of the session of the Medical Society of the Missouri Valley, which met in Kansas City on that date.

The meeting was well attended and many applications for membership were received.

The scientific program consisted of two papers and the presentation of two clinical cases.

Dr. H. B. McCall read a paper entitled "Ectopic Pregnancy with Special Reference to Etiology." This included a lengthy review of the various theories advanced to explain the cause of the condition under consideration; and from the discussions which followed it was evident that there were yet a few facts in connection with this subject which must be better established by pathologists before a general acceptance of its etiology can be expected.

Dr. J. A. Horigan opened the discussion of this paper; he was followed by remarks from Drs. Arthur E. Hertzler, A. H. Cordier, E. F. Robinson, George M. Gray, B. C. Hardin and Nannie Stephens. Dr. McCall closed the discussion.

Dr. R. E. Castelow read a paper on "Shock in Emergency Surgery." Quite an original sketch upon a subject of much practical importance, the essayist exhibiting evidence of much thought and experience in the condition presented for discussion. The doctor gave as classes of shock (1) "physical" and (2) "mental," to which latter division some objection was raised in the discussion.

Dr. Ernest F. Robinson opened the discussion by describing the general condition present in shock in emergency work, stating that it was a collapse or depression of the vital centers, as the signs and symptoms outlined by Dr. Castelow well demonstrated; he said that shock was always a physical condition, including even the so-called "mental" shock. He urged that in all emergency work shock and hemorrhage should be carefully differentiated. In the treatment, Dr. Robinson claimed a great deal for the infusion of hot normal saline solution, preferably by intravenous injection.

The following also took part in the discussion: Dr. Gordon A. Beedle and Dr. A. H. Cordier. Closed by Dr. R. E. Castelow.

Dr. M. M. Edmonson presented two cases of Pott's disease of the spine, in children aged four and seven years. The younger child suffered from an involvement of the lumbar region of the vertebral column, while the older one presented an involvement of the sixth cervical vertebra, with a distinct kyphosis at this point. The treatment in the second case consisted of the use of the plaster of Paris jacket and the jury-mast for the relief of pressure, and tonics to improve the general condition of the child.

Owing to the late hour the discussion of these cases was postponed until the next meeting, April 27, 1905.

New Members:—James S. Eldredge, Kansas City; J. A. Balsley, Kansas City; Oscar O. Young, Kansas City.

MAX GOLDMAN, M. D., Secretary.

HOLT COUNTY MEDICAL SOCIETY.

Dr. B. F. Quigley, President.

Dr. J. F. Chandler, Secretary.

The Holt County Medical Society held its regular quarterly meeting in Mound City, Wednesday, April 5th, when the following program was rendered: Paper, "Puerperal Exlamptasia," Dr. Gray of Craig; paper, "Acute Nephritis," Dr. Aiken of Oregon; paper, "Consumption," Dr. Bickel of Mound City; paper, "Intestinal Obstruction," by Jacob Geiger; clinic, "Tubercular Knee," Jacob Geiger of St. Joseph. The next meeting will be held at Oregon, on the first Tuesday in July.

J. F. CHANDLER, Reporter.

SHELBY COUNTY MEDICAL SOCIETY.

Dr. H. C. Vaughn, President.

Dr. A. M. Wood, Secretary.

The Shelby County Medical Society met March 22, in the office of Dr. Vaughan, at Shelby. The minutes of the previous meeting were read and corrected to include omissions. Clinical reports of hysteria and allied affections were presented by Drs. Chapman, Vaughan, Pollars and Wood. Discussions were interesting and instructive. On motion, Drs. Pollard and Smith were made a committee to prepare the program for the June

meeting, at which time refreshments will be served.

A. M. WOOD, Reporter.

BATES COUNTY MEDICAL SOCIETY.

Dr. A. E. Lyle, President.

Dr. E. N. Chastain, Secretary.

The Bates County Medical Society held its regular meeting in Butler, March 24th. Dr. Lyle read an exceedingly interesting and instructive paper on "How I Treat Some of the Obscure Gynecological Cases." Discussion, which was general, brought out many valuable points. The society adjourned to meet the first Thursday in May. At a special meeting called to order April 10th, Dr. J. N. McCormack of Bowling Green, Kentucky, addressed the doctors of this county on the subject of "Organization." He was followed by Drs. Jackson and Overholser. The following were elected to membership: Drs. J. R. Coulson of Spruce, T. C. Boulware of Butler, T. F. Lockwood of Butler, J. W. Foster of Butler, E. E. Gilmore of Adrian, N. L. Whiffle of Pleasant Gap, and Dr. Miller of Maysburgh.

E. N. CHASTAIN, Reporter.

SCHUYLER COUNTY MEDICAL SOCIETY.

Dr. E. L. Mitchell, President.

Dr. H. E. Gerwig, Secretary.

The Schuyler County Medical Society met in Lancaster, April 10th, Dr. W. F. Mitchell presiding. The minutes of the previous meeting were read and approved. Dr. B. B. Potter of Lancaster, and Dr. J. H. Keller of Glenwood, were elected members. The

society then proceeded to the election of officers for the ensuing year. The results were as follows: President, E. K. Mitchell of Lancaster; vice-president, J. B. Bridges of Downing; secretary and treasurer, H. E. Gerwig of Downing; delegate, W. F. Mitchell of Lancaster. The society adjourned to meet in Lancaster, June 6th. H. E. GERWIG, Reporter.

AUDRAIN COUNTY MEDICAL SOCIETY.

Dr. C. A. Rothwell, President.
Dr. E. S. Cave, Secretary.

The Audrain County Medical Society met in the office of Dr. Cave, at Mexico, Dr. C. A. Rothwell presiding. Dr. L. H. Lanier of Martinsburg, the essayist of the evening, was absent "because he had married him a wife and could not leave her." The chair called for reports of cases and Dr. M. E. Crawford reported an unique case of gall stones, complicated with nephritic colic. Both these papers were liberally discussed. The name of Dr. J. S. Jordan, of Rowena, was presented for membership. Dr. Cave offered the following resolutions which were unanimously adopted:

"Whereas, there are still a number of regular physicians in the county who are not members of the Audrain County Medical Society; therefore be it

Resolved, That the secretary is hereby instructed to write each of these, sending application blanks and requesting them to become members of the county society."

The society adjourned to meet the first Monday in May.

E. S. CAVE, Reporter.

HOWELL COUNTY MEDICAL SOCIETY.

Dr. J. W. Bingham, President.
Dr. H. C. Shuttee, Secretary.

The Howell County Medical Society held its regular meeting in K. P. Hall April 6th, at 10 A. M. After the preliminary business Dr. A. H. Thornburgh read a paper entitled, "Intestinal Autointoxication," which was well received and generally discussed. The afternoon session was devoted to a memorial meeting in honor of the late Dr. W. T. Edwards, who died after a two days' illness of pneumonia March 2, 1905. Suitable resolutions were adopted and ordered spread on the records, remarks were made by several physicians, and a brief sketch of his life and character read by Dr. H. C. Shuttee.

OUR DEPARTED BROTHER.

The late Dr. W. T. Edwards was born in Dent county, Missouri, April 10, 1866, and died March 2, 1905, of pneumonia, after an illness of only two days. Like a majority of our successful men, his early life was spent on a farm and his early manhood in teaching school. His early educational advantages, as is true of a great many of us, were limited, but by diligent application he was ever striving to improve himself, and during the time we were associated with him in a business capacity he was a most diligent and painstaking student. By energy, persevering labor and the pluck that wins, he had succeeded in his life's work, and was growing not only in professional work, but what is of still greater importance, he himself was growing, and but for his untimely death his years

of greatest usefulness were still before him.

Pluck wins; it always wins, tho' days be slow

And nights be long 'twixt days that come and go—

Still pluck will win, its average is sure;

He wins the most who can most endure

Who faces evils, he who never shirks,

Who waits and watches, and who always works.

By nature of a jovial and sanguine disposition, Dr. Edwards looked on the bright side of life, but at times during attacks of illness, which were not infrequent, he became very despondent, and at different times he himself predicted his early death. These spells of depression, however, he always succeeded in throwing off in a few days.

Like all large-hearted and generous men he had a profound contempt for the petty and sordid, especially in a brother physician, and in his relations with his professional brethren he was always ethical and just. Beyond almost any other profession, the study and practice of medicine should have a broadening effect on the mind and a mellowing effect on the heart, and should enlarge our charity and expand our souls; yet it is only too true that there are in our ranks men of microscopic heart and soul whose happiest moments seem to be passed in giving utterance to damaging inuendos against a confrere or even more open slander, and whose highest ambition appears to be, not professional excellence, but an attempt to advance their own interest at the expense of a professional brother. For such men—for the physician whose professional horizon is bounded by the dollar and who sees nothing in his life's

work except the money he can make out of it, for the trimmer and trickster, for the sycophant who "bends the pregnant hinges of the knees that thrift may follow fawning," Dr. Edwards had, in common with all true physicians, the most profound contempt, and he had neither the desire nor the policy to conceal his aversion.

Our profession is one burdened with weighty responsibilities, responsibilities so great that the bravest heart and most courageous soul may at times well shrink, and our motto should be, "Do your best and leave the rest." Happy is he who can, after the day's work is done, throw off the burden of sympathy and responsibility and allow his mind to dwell on more pleasant things. Unhappily, however, all physicians can not do this, and often anxious hours and sleepless nights are the result. This was the case with Dr. Edwards; he often let the weight of responsibility rest too heavily on his mind and heart, and if cases turned out badly, as they sometimes do with all of us, he often unjustly censured himself for the unfortunate results.

In my association with Dr. Edwards I found him always just and honest, willing rather to concede than to contend, anxious always to meet a man more than half-way. Pope says, "An honest man is the noblest work of God."

Dr. Edwards was honest in his dealings with his fellow men, honest with his brother physicians, honest with his patients, honest with himself. In his death the community has lost a useful citizen, the profession a valuable member and his family a

kind, loving and indulgent husband and father.

H. C. SHUTTEE, Reporter.

CALLAWAY COUNTY MEDICAL SOCIETY.

Dr. J. F. Harrison, President.
Dr. Martin Yates, Secretary.

The Callaway County Medical Society met April 13th, at Fulton. The subjects "La Grippe" and "Empyema" and their treatment were discussed, after which the society proceeded to elect officers for the ensuing year. The election resulted as follows: President, J. F. Harrison; first vice-president, R. T. Gibbs; second vice-president, W. M. Bayliss; secretary and reporter, Martin Yates; treasurer, G. D. McCall; delegate to the State Association, D. H. Young; alternate, W. S. Baker.

J. F. HARRISON, Reporter.

PETTIS COUNTY MEDICAL SOCIETY.

Dr. W. C. Overstreet, President.
Dr. W. J. Ferguson, Secretary.

The Pettis County Medical Society met in Sedalia, January 16th, Dr. W. C. Overstreet presiding. After the usual preliminary business Dr. George E. McNeil read a paper on "Fractures of the Shaft of the Femur," the purpose of the paper being "not to present the subject in a detailed way, as given in text books, but to call attention to a few main features of this fracture and present a few new ideas regarding the treatment." Six cases were presented in the paper, as follows: Case 1. Mr. K., bridgeman. Fracture at junction of upper and middle third. Treatment, Buck's extension as applied by Scudder. In seven weeks applied plaster cast. The amount of callous gave the appearance of deformity, but the x-ray showed one and one-half inch shortening and functionally good limb. Case 2. Mr. H. Mexican. Fracture through upper third left femur. Treatment as in first case, with one inch shortening and useful limb. Case 3. Mrs. F., injured in railway wreck. Fractures of left ankle, middle third leg and middle third left femur. Treatment similar to that of the preceding cases, modified, however, as will be explained below. After ten weeks' extension, plaster of Paris cast was applied. Patient left for her home in Kansas City before the case was concluded, but all indications were favorable for little deformity and probably one inch shortening. Case 4. Mrs. R., injured in railroad wreck. Fracture of middle third right femur, with severe deep laceration of soft tissues of right leg. Treatment as in case 3. Less than one inch shortening and no deformity. Promises to be functionally an almost perfect limb. Case 5. Mr. H., injured in railroad wreck. Potts' fracture right ankle and simple fracture of middle third of left femur. Treatment as in cases 3 and 4. Still under treatment. Will have some angular deformity and at least one inch shortening. Case 6. Mr. M. Italian. Fracture lower third of left femur. Still under treatment. Extension has overcome all shortening and coaptation splints prevent deformity. Best results of the six are confidently anticipated. My modification used in the last four cases consists of transverse strips fastened to the under side of the posterior splint and projecting six

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inches to the outside to prevent outward rotation. This has been more effectual than the long external splint with cross piece at the lower end. It absolutely prevents all eversion of the foot and all outward rotation. The long external splint is used, but only to the ankle. Instead of attaching the pulley to the foot of the bed, I have a blacksmith make a post to be fastened to the floor independent of the bed. This, I think, has some advantages, and is more convenient than fastening to the bed. We should aim to overcome shortening, prevent outward rotation and angular deformity. My modification of Scudder's method, if properly applied, will, I believe, give as good results as we will ever get in these cases until it becomes proper treatment to cut down upon every fracture and by some method fasten the bones together. This latter, I believe, will be the accepted method within the next few years; yet without this we should get better results than we have in the past. With anesthesia in every case, with careful adjustment of the fragments, with careful and intelligent application of the apparatus, and with painstaking after-treatment, we can and should get better results.

This paper of Dr. McNeil's was very much appreciated by the society, and the discussions were extended. Dr. Cowan complimented the essayist, and will try the modification of Scudder's treatment at the first opportunity. Dr. Wood commented on the excellence of the paper. His experience with these cases was not extensive, but he had had excellent results with Buck's extension. Dr. Collins also thought it a most remarkable paper, but thought some little details were

overlooked, such as counter extension by raising the foot of the bed. He thought the results less favorable when the fracture was in the upper third, and suggested the triangular position as practiced by Dr. Bodine, of New York. He called to mind also the osteophonic percussion as used by Dr. Dorborn to determine if the soft tissues are between the separated ends of the fractured bone. Dr. H. B. Cole always uses Buck's extension, taking plenty of time to get things in full readiness and then to carefully approximate and adjust the bones under chloroform anesthesia. Dr. Yancey was greatly interested in the paper, which he pronounced most excellent. He always regrets to see these fractures, for he feels that with any treatment there will be more or less shortening and deformity. He agrees with Dr. McNeil that the day is coming when the radical operation of cutting down and wiring will be the treatment. Dr. W. M. Cole appreciated the value of Dr. McNeil's modification, and considered it worth trial. Dr. Ferguson complimented the essayist. He thought extension with the best obtainable apposition the keynote of treatment. Dr. Overstreet concurred with the ideas advanced in the paper, and considered them a valuable addition to surgery.

W. J. FERGUSON, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. R. P. Davis, President.

Dr. G. C. Coffey, Secretary.

The regular monthly meeting of the Platte County Medical Society was held in Platte City, April 5th, with

Dr. Davis in the chair. Dr. Redman presented a case of fracture of the clavicle which, at this time ten weeks after receipt of the injury, shows a condition of loss of power of the muscles of the arm with atrophy. Discussion of the case was general, the consensus of opinion being that at the time of the receipt of injury the brachial plexus was involved, and that likely pressure by the callous may account in part at least for the present symptoms of paralysis. Dr. Barr opened the discussion on diphtheria. He had never had a case where the membrane appeared primarily in the larynx, the invasion of the larynx being always secondary to that of the pharynx or nasopharynx. During the discussion, which was animated, many cases were cited by those who felt certain that the invasion of the larynx was primary. Dr. A. S. Herndon's valuable paper on Hysteria was much appreciated and generally discussed. The doctor has had excellent results from the use of apomorphin during the attack. Dr. W. H. Smedley of Weston was elected to membership. The society adjourned to meet in Dearborn the first Wednesday in May.

G. C. COFFEY, Reporter.

DAVIESS COUNTY MEDICAL SOCIETY.

Dr. J. D. Dunham, President.

Dr. M. A. Smith, Secretary.

The Daviess County Medical Society met in regular session at Gallatin, with Dr. W. L. Brosius in the chair. The minutes of the last meeting were read and approved. Dr. W. T. Lindley of Hamilton read a very interest-

ing paper on "Retroversion of the Uterus; Cause and Treatment." The discussion was general. Dr. Tinsley Brown of Hamilton read a paper on "Tonsillitis," which was discussed at length. Both papers were highly appreciated by the members of the Daviess County Society and a vote of thanks was extended for their attendance and instructive papers. Dr. F. C. Eastman reported the history of a case of housemaid's knee, which was discussed at length. The next meeting of the society will be held at Gallatin July 11th.

M. A. SMITH, Reporter.

RANDOLPH COUNTY MEDICAL SOCIETY.

Dr. G. O. Cuppidge, President.

Dr. W. M. Dickerson, Secretary.

The Randolph County Medical Society met in regular session at Moberly, April 11, 1905, Dr. D. A. Barnhard in the chair. The annual election of officers resulted as follows: President, G. O. Cuppidge; vice-president, A. Aldridge; secretary and treasurer, W. M. Dickerson; delegate, C. B. Clopp; board of censors, D. A. Barnhart, S. P. Toulis, and reporter, S. C. Adams. The principal paper of the evening was read by Dr. G. W. Nichlos. It was freely discussed by all present. D. J. N. McCormack, organizer for the American Medical Association, spoke April 14th. The attendance was large, including physicians from adjoining counties. All present agreed that McCormack was an able, capable and enthusiastic worker.

S. C. ADAMS, Reporter.

JASPER COUNTY MEDICAL SOCIETY.

Dr. A. B. Freeman, President.

Dr. J. T. Stamey, Secretary.

Dr. C. C. Cummins, Reporter.

The Jasper County Medical Society met in regular session at Joplin Missouri, April 3, 1905.

Doctor Kelso read a paper on pneumonia of the lobar type.

Doctor Grantham reported an interesting case of injury to the urethra, resulting in fistula, later inflammation of the bladder, right ureter and kidney, with enlargement of the latter organ.

Doctor McCormick, of Bowling Green, Kentucky, who for the past five years has been chairman of the committee on re-organization of the American Medical Association, spent a day with us last week. His visit here was for the purpose of uniting the physicians of southwest Missouri. The profession met him in the assembly room of the Joplin Commercial Club. There were about fifty physicians present, and for two hours in the afternoon and two hours in the evening the physicians listened with rapt attention to this very entertaining speaker.

He told of his experience during years of practice in the state of Kentucky, of the difficulties physicians met in associations with each other and in their associations with the public. He stated flatly that the medical profession in America was held in positive contempt by the public, and that no one was to blame but the members of the profession. He stated that the reputation of the profession was not made by the better men, but by the poorer men; that the public

recognized no difference between physicians, and that we were judged from the standard of the quacks, advertisers and the dishonest.

His twenty-five years' experience working with the legislators of Kentucky showed him that these men knew but one honest doctor in their respective communities, their family physicians, and that they knew this was so because these honest doctors had told them so. This is true in all states, and until such impressions are removed it will be very difficult for the profession to secure proper protective legislation before such bodies, the average legislator being prone to view with mistrust any bill presented by physicians.

He showed that there were 60,000 physicians in the United States who were not making as good a living as the average mechanic, some of the reasons being that they were poor business men, most of them being afraid to collect their bills, fearing that some other doctor might get their patients, and the rest were so busy quarrelling among themselves that they had no time to attend to the minor matter of finance. Because of these facts they were unable to keep up with the rapid progress of medical sciences; were unable to purchase proper equipment in the way of instruments and the late medical literature; to take post-graduate courses, and as a result were a positive menace to the communities in which they lived.

He discussed at length the relations of the profession to the public, to the newspapers, to the druggists, to legislative bodies of cities and states, and last, but not least, the ministry. He

showed how all of these powerful influences can and are being lined up to help the medical profession in the great cause of humanity instead of opposing us, as they have been universally doing. Our intentions are good, but our methods very bad.

The doctor stated that if all physicians would require the ministry to pay physicians' bills, the same as other people, we should be the gainer in the respect of that body. Ministers are like other people in this that they appreciate that for which they have to pay.

He urged the interest of every physician in securing the passage of proper laws for their protection. The subject of reciprocity between states was thoroughly discussed, and it was shown that thus far Missouri had not given this matter the attention it deserved, and that her physicians were, therefore, without protection should any of them desire to move to other states on account of ill health or for other reasons.

The maintenance of interest in the medical society is of vital interest to the medical profession as well as to the public, and the doctor stated positively that goodfellowship and interest were best conserved by more eating and lunching at our regular meetings with much less talking. He believed that all of us had heard that ante-deluvian paper on typhoid fever, copied from an ante-deluvian text book and read by an ante-deluvian doctor, praised in open meeting so often that we were thoroughly tired of it. And so it is with other papers. He said that all this time should be given to the reporting and discussion of cases; that every case has points of

practical interest worthy of discussion.

The doctor presented the great work the American Medical Association is doing for the profession and humanity in this country in spite of many obstacles. He spoke of the university extension course now being inaugurated by this association, and soon to be put into practice, whereby any graduate can, under the supervision of the association, pursue his courses at home and receive credit therefor in the shape of diplomas.

Discussed by Doctors Duckett of Millsboro, McCoy of Verona, Bridges of Tipton Ford and Mathews, Grantham, Cummings, Pifer and Geo. W. Miller of Joplin.

C. C. CUMMINGS, Reporter.

IRON COUNTY MEDICAL SOCIETY.

Dr. R. W. Gray, President.

Dr. Ira A. Marshall, Secretary.

The Iron County Medical Society met on the 1st of April, Dr. R. W. Gray presiding. The meeting was very profitably devoted to reports and discussions of clinical cases of which a goodly number were presented. Several excellent papers are promised for the May meeting, among them one by Dr. I. A. Marshall, on "Pneumonia;" by Dr. Adams, of Bellevue, on "Typhoid Fever;" by Dr. Clarkson, on "Malaria;" by Dr. Gay, on Enteric Diseases of Childhood;" by Dr. Kerlogon, on "Professional Courtesy." Already considerable interest is manifest in this meeting and we expect an unusually good attendance.

I. A. MARSHALL, Reporter.

CALDWELL COUNTY MEDICAL SOCIETY.

Dr. C. C. Leeper, President.

Dr. Tinsley Brown, Secretary.

The Caldwell County Medical Society held its quarterly meeting at Breckenridge, April 5th, Dr. C. C. Leeper being in the chair. Five active and three honorary members were added to the society, the latter being among the oldest physicians in the state. All three reside in Breckenridge. Joseph S. Halstead, M. D., graduated from the medical department of Transylvania University in 1840. After practicing in Lexington, Kentucky, for twenty-five years, he moved to Breckenridge before the war. Montgomery Bottom, M. D., graduated from the medical department of the University of Virginia in 1849. He, too, settled in Breckenridge before the war and has been in active practice continuously since. R. C. Pearce, A. M., M. D., graduated from the Indiana Medical College in 1850. He practiced in Lafayette, Indiana, until a few years ago when he moved to Breckenridge. Our society is firmly of the opinion that the remarks attributed to Dr. Osler, which have so stirred the world recently, do not apply to professional men in Caldwell county. Dr. Tinsley Brown read a paper entitled "Puerperal Antisepsis." This paper was thoroughly discussed by the society. Dr. H. L. Woldridge presented a clinical case with ossification of the tendo achilles of the right leg. The president, by motion, was authorized to appoint a committee to formulate a fee bill to be presented at our next meeting. Dr. C. C. Leeper was elected delegate to

the State Association. The society adjourned to meet at Hamilton, July 5th.

TINSLEY BROWN, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. A. W. Moore, President.

Dr. C. W. Watts, Secretary.

The Howard County Medical Society met in regular session in Fayette, April 18th, Dr. Moore presiding. The minutes of the February meeting were read and approved. The attendance was unusually good, perhaps, due to the good influence of Dr. McCormack, who met the doctors of our district, April 14th. We feel satisfied that his visits among us will result in great good to the profession in this county, for, although we are at peace and assist each other whenever the opportunity offers, and although we have a regular price for professional visits, we are lax in collecting. Dr. McCormack has awakened us to this and other needs and we thank him for his visit and hope to have him with us again.

C. W. WATTS, Reporter.

BOONE COUNTY MEDICAL SOCIETY.

Dr. J. E. Thornton, President.

Dr. W. A. Norris, Secretary.

The Boone County Medical Society met at Parker Memorial Hospital, April 3d, with an unusually good attendance. Dr. J. M. Fisher read a paper on "The Dangers of Gonorrhea." The discussion was general. Dr. Wallace, of St. Joseph, who was visiting the society took part by request in the discussion. The society adjourned to meet the first Monday in May. W. A. NORRIS, Reporter.

ST. LOUIS MEDICAL SOCIETY.

Dr. F. L. Henderson, President.

Dr. J. C. Morfit, Vice-President.

Dr. T. A. Hopkins, Secretary.

Dr. R. M. King, Treasurer.

The St. Louis Medical Society has convened in regular session four times since March 17th. The following papers, discussions and addresses have been presented before the society:

At the meeting held on March 18th, Dr. Willard Bartlett presented a paper: "On the Value of Getting Certain Patients Up Very Early After Laparotomy." Dr. Bartlett stated that often we have such disagreeable symptoms as vomiting, backache, gastro-intestinal and pulmonary derangements, retention of urine and constipation immediately following a laparotomy, and cited numerous specific instances in his practice, in which relief was speedily obtained by allowing the patient to sit up within twenty-four or forty-eight hours or more after the operation. He drew a line of distinction on the classes of patients in which early "getting up" is beneficial. These cases consist, in part, of malignancies in elderly emaciated patients, who if allowed to remain in bed the usual ten, fifteen or more days, lose so much strength and become so resigned mentally; that very often they do not get up at all, or often when they do, the period of convalescence and strength-regaining is much extended. Certain patients in which the vitality is low and have a neurasthenical tendency may also be gotten up early, with much benefit, much depending on the individual case at hand. Dr. Bartlett prefers to allow a patient to get up and urinate, rather than risk a possible infection

in passing a catheter, and has repeatedly seen such symptoms as vomiting, backache, retention of urine, constipation and general feelings of unrest and worry, speedily disappear, after the patient is gotten up. Getting the patient up soon after an operation imparts a certain elevation of spirits and a general psychical condition which certainly, materially aids in the early recovery of the patient. Having in mind the idea of getting the patient up early, Dr. Bartlett closes the abdominal wound, thoroughly with layer sutures and believes that by so doing there is little danger of the visceral weight forcing the wound open. Certainly the tension produced by visceral weight can be no greater than that produced by distended bowels—caused by constipation which often ensues when the patient is lying down. In cases of malignancy the wound is closed in layers and reinforcement sutures used, all suture material being non-absorbable, and in ordinary cases the layer sutures on catgut, reinforced by non-absorbable tension sutures. In no case is entire dependence placed on all absorbable suture material. Discussion by Drs. C. H. Hughes and F. Taussig.

At this meeting a telegram was read by Dr. Homan, announcing the favorable action of the Missouri Legislature on the bill providing for a state consumption sanatorium.

Scientific matters were dropped, and special addresses and voluntary tributes were made, in memorium of Dr. William McPheeters, at the meeting held on March 25, 1905.

Dr. William McPheeters was a graduate of the medical department of the

University of Pennsylvania, 1840, the oldest alumnus of that institution, and the oldest practitioner in St. Louis. At times he was a member of the faculty of the Missouri and St. Louis Medical Colleges, editor of the *St. Louis Medical and Surgical Journal*, and the oldest member of the St. Louis Medical Society. Dr. McPheeters died at his home in St. Louis, March 17, 1905, aged eighty-nine.

"Dr. McPheeters was a man possessed of a strong character and had a great knowledge of 'love and right.' He was religious, but practically so. He participated in political affairs and was an ardent advocate and practitioner of pure and lofty political sentiments. He held out a strong and helpful hand to the young man struggling in the profession. He was 'noted' for so many things and objectionable for so few, was conscientious to the highest degree, and always considered whether he was right, and when he so decided, he followed his convictions, with indomitable energy." These tributes are a few of the many paid to the companion who is dead and to the character which lives. The following program prepared by the special memorial committee, was presented:

Dr. J. M. Scott, address: On "Dr. McPheeters, The Man and Physician."

Dr. Le Grand Atwood, address: "Early Recollections of Dr. McPheeters."

Dr. P. G. Robinson, address: "Dr. McPheeters, The Colleague and Friend."

Dr. C. H. Hughes, address: "Dr. McPheeters, The Preceptor and Teacher."

Dr. F. J. Lutz prepared a paper, read by Dr. W. A. McCandless, on account of the absence of Dr. Lutz from the city. The address was on "Dr. McPheeters, The Father of Organized Medicine in Missouri."

Dr. Joseph Grindon, address: "The Lesson of Dr. McPheeters' Life."

Many voluntary tributes were given, among them being tributes given by Drs. Tuholske, Hypes, J. J. Miller, Homan and L. C. Boisliniere.

At the meeting held April 1st, the Hon. Henry T. Kent, by invitation, addressed the society on the subject of "The Contemplated \$9,000,000 Municipal Bond Issue." Mr. Kent presented very forcibly the demands of our growing city and clearly pointed out the arguments in favor of the contemplated bond issue. The subject was also discussed by Dr. James Moores Ball. On motion of Dr. Bransford Lewis, the society adopted a series of resolutions favoring the issue of the bonds, part of the proceeds of which are intended for improvement of our eleemosynary institutions.

At the meeting on April 8th, Dr. Sidney I. Schwab read a paper on "New Therapeutic Measures in Neurology, with Illustrative Cases," and Dr. Robert F. Amyx presented a new hemorrhoidal clamp, permitting suture of seared surfaces before removing the instrument.

Dr. Schwab stated that although he had nothing to present which would revolutionize neurological therapeutics, yet he believes that there is a splendid opportunity for improvement in this branch of medicine. The usual therapeutic measures, consisting of strychnine, bromides, electric-

ity and tonics, are antiquated and neurologic treatment demands a clear conception of the case—individual therapeutic application to the individual case and a high therapeutic courage. In order to understand the perverted functions and conditions which accompany nervous disorders, the neurologist must have a good general knowledge of medicine and surgery, especially physiology, anatomy, psychologic conditions and special orthopedic surgery. With the newer methods of treatment, several of the more ordinary “incurable” nervous diseases have been experimented on by Dr. Schwab, and he reports a number of benefits produced in cases under his observation in clinic, hospital and private practice. The “flat foot” of tabes has been corrected by a flat-foot brace, the educational co-ordinating muscular exercises of Traube is instituted, larger doses of mercury are given by the hypodermic method and marked psychical, if not physical benefits, have been obtained. “Tic” movements are inhibited by pressure, with a devised apparatus, and educational exercises of the muscles involved are introduced, with marked benefits in many cases. “Reynaud’s” disease is treated with a considerable degree of success by elastic pressure bands. The newer therapeutics consists of prophylaxis, advice in the direction of right living, proper exercises and in neurasthenical cases, advice to those in immediate daily contact with the patient. Discussions by Drs. Grindon, Bliss and Booth.

Dr. Amyx presented his hemorrhoidal clamp, and a paper explaining the advantages and apparent

necessities for such an instrument. The instrument allows of suturing the hemorrhoid, in the clamp, after being seared. This, it is claimed, will prevent hemorrhages, rupture of the seared surfaces and consequent infections and ulcerations. Discussions by Drs. Brown and Stauffer.

Dr. John Young Brown presented a specimen of bowel resected in a strangulated inguinal hernia operation at the City Hospital, the bowel being resected through a supplementary abdominal wound, which allows thorough exploration and satisfactory work. Dr. Brown stated that he has had five cases out of six operated, recover from this operation, for removing strangulated and necrosed bowel in strangulated hernia cases.

C. H. SHUTT, Reporter.

COOPER COUNTY MEDICAL SOCIETY.

Dr. P. L. Hurt, President.

Dr. R. S. Holman, Secretary.

The Cooper County Medical Society met in the circuit court room in Boonville, April 5th, to listen to the address of Dr. J. N. McCormack, chairman of the Committee on Organization for the American Medical Association. Many visitors were present, among them being Drs. John Hall and Manning of Marshal. Dr. McCormack’s address was intensely interesting and we hope all the physicians in the state may have an opportunity to listen to this able speaker. The profession in Missouri should be furnished copies of Dr. McCormack’s address, as frequent perusal of his inspiring remarks would be of inestimable benefit to us all.

R. S. HOLMAN, Reporter.

NODAWAY COUNTY MEDICAL SOCIETY.

Dr. F. R. Anthony, President.

Dr. G. A. Nash, Secretary.

The Nodaway County Medical Society was called to order by Dr. J. A. Larabee in Maryville, April 11th. The minutes of the previous meeting were read and approved. The annual election of officers resulted as follows: President, F. R. Anthony of Maryville; vice-president, G. A. Nash of

Maryville; secretary, L. E. Dean of Maryville; treasurer, H. L. Saylor of Elmo; delegate, L. E. Crowson of Pickering. Committees were appointed as follows: Committee on program, L. E. Dean, C. A. Ellis and C. F. Howell; committee on place of meeting, G. A. Nash and L. E. Dean. Dr. O. P. M. Mills was elected to membership. The society then adjourned to the regular time of meeting; that is the second Tuesday in May. F. R. ANTHONY, Reporter.

NEWS ITEMS.

Trains Spread Influenza.—Professor Allbutt is quoted as saying that influenza was disseminated by express trains and steamships. He said North China is the cradle of the disease. The Transsiberian railway has greatly facilitated the spread of the disease. The misery and depression frequently following influenza can be shortened by a plain diet of milk and vegetables. Beef tea and other supposedly strengthening foods only delay recovery.

Reports of x-ray burns sustained by radiographers are becoming very frequent. Mrs. Elizabeth-Fleischman-Ascheim, one of San Francisco's most expert x-ray operators, who has worked for all the hospitals and many of the physicians in that city, had recently to submit to amputation of her right arm as the result of frequent exposure to the x-ray.

Philadelphia, in addition to the outbreak of cerebro-spinal meningitis, has to contend with a steadily increasing epidemic of typhoid fever. For the week ending March 4th there were 92 cases; for the week ending March 11th, 178 cases, and for the week ending March 18th, 247 cases. As usual, the wards unprovided with filtered water are contributing the greatest number of cases.

Arrangements have been made for an interchange of professor of Harvard and Germany. The emperor is seeking to make such interchange on a large scale. Properly arranged, this would result in great benefit to all.

It would be well could students in the medical departments of universities having similar requirements, without violence, spend separate years in different institutions. Long since such a custom prevailed in Germany to the advantage of all concerned.

SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Meeting of April 13, 1905.

THE ETIOLOGY AND TREATMENT OF ECLAMPSIA.

Dr. Henry Schwarz read this paper, for which see page 591.

DISCUSSION.

Dr. F. J. Taussig did not take quite as pessimistic a view of the investigations by Dr. Dienst as did Dr. Schwarz. Dr. Schwarz had objected to Dr. Dienst's theory on the ground that the test of Dienst's by injecting the methylene blue after the birth of the child was unreliable because the placenta was not at that time adherent to the wall of the uterus. Recent work along that line by German writers showed that the placenta usually remains adherent until the beginning of the first after pains, and that in half of the cases of women who died post partum, the placenta, not having been extracted, was found firmly adherent to the uterine wall. As to the toxic effects produced by the injection of the blood of one animal into an animal of another species, certainly the pathologic picture greatly resembled that of the toxemia of pregnancy. Experiments on rabbits had proved how much more susceptible was the nervous system of the pregnant individual than was that of the non-pregnant individual. Regarding the treatment, the plan suggested by Dr. Schwarz was certainly very practical, namely, avoiding a complicated scheme and operations that could only be done in hospitals. Diet and hygiene had certainly given better results than anything else. Whether the Bossi dilator was as safe an instrument as its upholders claimed was not yet established. About six months ago it was stated that it frequently caused a parametritis aside from the tears that resulted. The more recent publications of Lichtenstein, however, showed that such infections could not be ascribed to the Bossi dilator.

Dr. Henry Rohlfing, referring to the neurotic element, said that fifteen years ago he had been called in to see a case that had been attended by a midwife. The patient had convulsions, but when he arrived they had disap-

peared. The same afternoon the patient had another convulsion and he had quickly delivered her. She had since given birth to a number of children with no eclamptic recurrence. As to the usual causes, leucomaines and other principles that might be found in the blood would have to be taken into consideration. As to the dose of veratrum viride he thought fifteen to twenty-five drops rather high.

The president had been particularly interested in the classification made in the etiology, separating the toxemia which prevailed in uremia from that other toxemias, due to the bi-products of nitrogenous elements. The speaker's experience had not been very good, especially where the convulsions recurred after the delivery of the child. Most of his cases of eclampsia relieved by delivery had gotten well, but he could recall but one or two cases of fifteen or twenty that had gotten well where the convulsions recurred after delivery. The cases where the nephritis was well marked were very unfavorable. He asked Dr. Hypes if any of his patients had had nephritis. Personally he had not the unbounded faith in veratrum viride that many of its advocates had. He thought it a good drug, but he did not believe it would do much good when the uremic element was predominant. Obstetricians all believed in the necessity for rapid delivery nor was there any question as to the value of the other treatment recommended by Dr. Schwarz, but he did not believe it would cure cases of eclampsia when the uremic element was the main factor. His experience had been that those cases which had done best were those in which there had been extreme loss of blood. In two cases the venous return had been so poor that he had failed to get the satisfactory amount of blood.

Dr. Schwarz, in closing, said that as regards veratrum viride, Fordyce Barker did not use veratrum because he was afraid of it. There were many enthusiasts on the subject

and others were very skeptical. It has its advantage in cases after delivery, in which one hesitates to advocate venesection, when the eclamptic symptoms return with a full bounding pulse with a frequency of one hundred or more; the arterial pressure must be relieved, and it answered very well in such cases. Provided the renal secretion was not entirely suppressed veratrum in doses of twenty drops would bring about decided relief. In one of his cases in which he had used the Bossi dilator, the woman had suffered with grip. She had no albumin in the urine three days before the symptoms appeared, but on that day the specific gravity was 1,044, there were all kinds of casts present and the urine would coagulate completely. All possible measures were adopted to prevent the attack, but at 5 A. M. she had her first convulsion and as some one was on guard she was delivered immediately. But she was not fully relieved of the arterial tension. At 2 o'clock in the afternoon she had her second convulsion and one-half grain of morphine was given hypodermically, but the tension returned and twenty drops of Norwood's tincture was injected and the pulse dropped from 98 to 52. The patient had no further convulsions. In that case the doctor simply used it to avoid venesection. Nicholson's success from the use of thyroid extract had interested him very much. What action Dr. Nicholson had found was probably due to the spermin contained in that extract. The presence of large quantities of spermin had been found in all glands with internal secretion and he hoped to see beneficial results from the injection of spermin, or some other body that would expedite the oxidation of waste products. As to the work of Dienst, there was something very captivating in his theories. Dr. Schwarz only objected to the manner of his experimentation. The latest large works on obstetrics made the statement that the placenta remained attached to the uterus after the birth of the child, but that did not change his ideas on the subject. After an experience of twenty-five years one ought to know whether the placenta remained attached or not. In ordinary labor the placenta was detached the moment the child had left the uterus. As the uterus contracted over the child the placenta was pushed off of the wall of the uterus like paper off of a wall that was shrinking. It was only

in the use of forceps and extraction in the interval of pain that it remained *in situ*. The fact that the placenta was found adherent might have been due to the fact that there had not been a moral contraction. But when in a university clinic one hundred and sixty cases were treated in the way that Dienst had described, there was something wrong, for experience taught that that was not the way such things happened. He might have been careful about his blood work, but there was nothing cheerful or satisfactory in his theories. While it might be possible to believe in the fact of an occasional leak in the placenta, he certainly could not believe that the blood of the fetus compared with the blood of the mother like the blood of a sheep or dog. If that theory should prove to be correct it would be a very unhappy one for one would have no means of preventing convulsions in any case. What would be the use of the hygienic and dietetic treatment if the convulsions were due to the entrance of fetal into maternal blood which there was absolutely no means of preventing. Dienst's work was probably a hasty one and in the next few months every word would probably be taken back. As to the use of veratrum viride when the uremic element was present, he could not speak as he had never used it in those cases. In convulsions occurring after delivery one is certainly less sure of the effect of the treatment. Before the woman is delivered one hopes to keep down the convulsions by delivery, but when they occur or continue to take place after delivery one feels less sure of the results, although experience teaches that the mortality is not as great in post partum convulsions as in those occurring before delivery. In 1880 and 1881 Dr. Schwarz had had a number of eclamptic cases and had always given chloroform, chloral hydrate and morphine until the patient was delivered, and with perfect success. But doctors had not the facilities then for hastening delivery that were possessed at the present time, nor were the means of preventing septic infection as perfect. But he had gotten along very nicely until he struck one of these cases of post partum eclampsia and that case had made him very modest ever since. Dr. Schwarz then read abstracts from his notes on the cases as follows:

August 24, 1881, at 10 P. M., I was summoned to the wife of Professor D., of Heidel-

berg, and found on my arrival a little woman, twenty-one years old, but well and strongly built, with no pelvic contraction, in labor for the first time; the cervix was fully dilated; the head on the floor of the pelvis; the greater fontanella to the left and forward; vulva and perineum hard and unyielding. In spite of severe pains there had been no progress for two hours. Inquiries brought the information that Mrs. D. during childhood had had convulsions on several occasions; that she had been very nervous of late; that she frequently talked in her sleep, or that she had gotten up and dressed herself while sleeping. During the last few weeks slight œdema of the hands and pronounced œdema of the lower extremities had developed.

At 10:30 P. M. epileptiform convulsions; patient recovers consciousness immediately afterwards. Forceps; one traction; left lateral incision and small perineal rupture; five sutures; placenta comes away easily; moderate hemorrhage; patient is quiet and rejoices over her happy delivery; the child, a finely developed boy, is all right in every way.

I left patient's house at 12:30 A. M., but was called back from the sidewalk because a second convulsion had set in; chloroform inhalation; patient soon recovers consciousness, but is like dazed; half an hour later third convulsion; patient remains unconscious and convulsions return every half hour with terrible regularity. Treatment: chloroform inhalations, morphine injections. Sometimes the intervals got a little longer, giving a ray of hope that the narcotics were taking effect. The secretion of urine was never fully suppressed, as about a pint was drawn by catheter repeatedly; it contained a great deal of albumin; form elements were not found; the examination was, however, a hasty one.

At 8 A. M. there had been sixteen attacks, and the patient was in a deep *sopor*. On the advice of the consultants stimulating methods were now employed. Patient was placed

in a warm bath (95° F.), and cold water was poured over her head; reflex motions were thus provoked, but the attacks likewise returned and the case grew more desperate. Pulse small and frequent; rattling in trachea; beginning pulmonary œdema; temperature between 38° and 39° C.

A fourth consultant was sent for, to get consent for venesection, for which lancet was ready. In the meantime inhalations of nitrate of amyl; enemas of wine, cognac, beef broth, etc. In the afternoon of the 25th the pauses were greater, two hours and more, and Geheimrat B. thought we should not let blood, but use wet packs and give narcotics per rectum.

When I went on duty at 7 A. M., August 26th, I found the pulse small and irregular; respiration shallow; pronounced rattling in trachea; highly cyanotic face; temperature 39.6° C. Convulsions less frequent; all treatment directed against the collapse, but the patient died from œdema of the lungs at 3:30 P. M., forty hours after delivery, and after more than thirty convulsions.

That was the first such case he had met with, and he felt he had no sure treatment for convulsions, and that there were cases where morphine and quick delivery would not give relief. In this case, in spite of the œdema of the face and lower extremities, the urine had never been examined. Morphine and chloroform were used to the limit. They had no *veratrum viride*, and venesection was a thing unheard of in Germany in those days, and they had no great inclination for it. It might not have made any difference in this case. But in all such cases, whether the convulsions occurred before or after delivery, what had to be done must be done quickly, energetically, to the full limit. There must be no question of temporizing, and generally the case would result satisfactorily. The object to be aimed at, however, was to prevent the attacks, rather than to cure them.

ST. LOUIS MEDICAL SOCIETY.

Meeting of March 18, 1905.

ON THE VALUE OF GETTING CERTAIN PATIENTS UP VERY
EARLY AFTER LAPAROTOMY.

Dr. Willard Bartlett read a paper on this subject, for which see page 604.

DISCUSSION.

Dr. Fred. J. Taussig confining his remarks to urinary troubles after operation, said he had occasion while in Vienna to study urine retention after laparotomy for cancer of the uterus. At that time practically every one of the patients subjected to a radical abdominal operation was unable to pass urine spontaneously and in consequence from 75 to 80 per cent. developed cystitis and a very few even a pyelonephritis. The cause was at first thought to be simply trauma, due to a dissection of the tissues about the bladder, but the bacteriological examinations he made showed that the entrance of bacteria accompanied each case and that it was owing to the repeated catheterization that cystitis developed. One fact of interest was that a great

many of the patients were able to pass urine spontaneously for the first time when they were allowed to get out of bed about the twelfth or fourteenth day. The subject of letting these patients get up early was brought before the Chicago Obstetrical and Gynecological Society by Kolischer. Following that paper, Dr. Ries said post-operative retention of urine could be avoided and he no longer had such a condition since he allowed patients to get up on the second to the fifth day. But the remarks of Dr. Ries had not convinced the speaker that this would be best, because of the difficulty of men like Wertheim in getting perfect union of the abdominal incision as a mild cystitis would be of less danger than the opening of an abdominal wound. It was hence still a question whether cancer cases, with their tendency to heal slowly, should be allowed to get up early.

Meeting of April 8, 1905.

A NEW HÆMORRHOIDAL CLAMP PERMITTING SUTURE OF
SEALED SURFACE BEFORE REMOVAL OF INSTRUMENT.

Dr. Robert F. Amyx read this paper, for which see page 602.

DISCUSSION.

Dr. William H. Stauffer said this addition was a valuable one if it did not call for sacrifice of tissue. The tendency of many operators was to adjust conditions to the method with which they were most familiar. The treatment should be adapted to the case in hand. As little tissue as possible should be sacrificed, the operation should cause as little pain as possible, and there should be the speediest possible restoration of function. One point worthy of consideration was that

the muscular tissue was sometimes ruptured as a result of too great dilatation of the sphincter, and this delayed restoration of function.

Dr. John Young Brown's experience with the clamp and cautery operation had been such that he hardly saw the necessity of the use of the suture in connection with the clamp and cautery operation. He believed that the bad results reported were due to the faulty application of the method, rather than to the method itself. In selected cases he had used it many times with results highly gratifying.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Adair.....	James Hanks	Brashear.....	E. C. Grim.....	Kirksville.
Atchison.....	G. W. Lott.....	Ulesboro.....	A. McMichael.....	Rockport.
Audrain.....	C. A. Rothwell.....	Mexico.....	E. S. Cave.....	Mexico.
Barton.....	G. D. Allee.....	Lamar.....	J. L. McComb.....	Kenoma.
Bates.....	A. E. Lyle.....	Butler.....	E. N. Chastian.....	Rich Hill.
Boone.....	J. E. Thornton.....	Columbia.....	W. A. Norris.....	Columbia.
Buchanan.....	P. I. Leonard.....	St. Joseph.....	Chas. W. Fassett.....	St. Joseph.
Butler.....	W. A. Kendall.....	Poplar Bluff.....	J. J. Norwine.....	Poplar Bluff.
Caldwell.....	C. C. Leeper.....	Braymer.....	Tinsley Brown.....	Hamilton.
Callaway.....	J. F. Harrison.....	Fulton.....	Martin Yates.....	Fulton.
Camden.....	G. M. Moore.....	Linn Creek.....	G. T. Myers.....	Macks Creek.
Cape Girardeau.....	H. L. Cunningham.....	Cape Girardeau.....	E. P. Porterfield.....	Cape Girardeau.
Carroll.....	W. C. Baird.....	Bogard.....	R. F. Cook.....	Carrollton.
Cass.....	R. D. Ramey.....	Garden City.....	J. S. Triplett.....	Harrisonville.
Chariton.....	H. C. Tatum.....	Brunswick.....	C. A. Jeannings.....	Salisbury.
Clark.....	H. W. Harris.....	Winchester.....	A. C. Bridges.....	Kahoka.
Clay.....	L. J. Jones.....	Linden.....	F. H. Matthews.....	Liberty.
Clinton.....	John Sturgis.....	Perrin.....	E. A. Colley.....	Platte City.
Cole.....	J. P. North.....	Jefferson City.....	G. E. Etmueller.....	Jefferson City.
Cooper.....	P. L. Hurt.....	Boonville.....	R. S. Holman.....	Boonville.
Crawford.....	W. A. Metcalf.....	Steeleville.....	A. H. Horn.....	Steeleville.
Current River.....	Frank Hyde.....	Eminence.....	J. A. Chilton.....	Van Buren.
Daviess.....	J. D. Dunham.....	Pattonsburg.....	M. A. Smith.....	Gallatin.
Dunklin.....	N. F. Kelley.....	Kennett.....	G. L. Johnson.....	Kennett.
Grundy.....	J. A. Asher.....	Trenton.....	W. D. Fulkerson.....	Trenton.
Henry.....	Jno. H. Britts.....	Clinton.....	F. M. Douglas.....	Clinton.
Holt.....	B. T. Quigley.....	Mound City.....	J. F. Chandler.....	Forest City.
Howard.....	A. W. Moore.....	Fayette.....	C. W. Watts.....	Fayette.
Howell.....	J. W. Bingham.....	Pottersville.....	H. C. Shuttee.....	West Plains.
Iron.....	R. W. Gav.....	Ironton.....	Ira A. Marshall.....	Ironton.
Jackson.....	Robt. T. Sloan.....	Kansas City.....	Max Goldman.....	Kansas City.
Jasper.....	A. B. Freeman.....	Joplin.....	J. T. Stamey.....	Joplin.
Jefferson.....	W. H. Farrer.....	DeSoto.....	H. Will Elder.....	DeSoto.
Johnson.....	M. P. Shy.....	Knobnoster.....	E. H. Gilbert.....	Warrensburg.
Laclede.....	J. M. Billings.....	Lebanon.....	J. A. McComb.....	Lebanon.
Lafayette.....	P. S. Fulkerson.....	Lexington.....	C. T. Ryland.....	Lexington.
Lincoln.....	S. R. McKay.....	Troy.....	Wm. P. Smith.....	Troy.
Linn.....	K. V. Stanley.....	Brookfield.....	D. F. Howard.....	Brookfield.
Livingston.....	David Gordon.....	Chillicothe.....	J. F. Cherrington.....	Chillicothe.
McDonald.....	E. F. Doty.....	Anderson.....	M. L. Sellers.....	Anderson.
Macon.....	E. S. Smith.....	Macon.....	G. B. Rush.....	Macon.
Madison.....	G. W. Greenwood.....	Fredericktown.....	C. U. Davis.....	Fredericktown
Maries.....	O. C. Fritts.....	Lois.....	O. N. Schudde.....	Vienna.
Marion.....	R. H. Goodier.....	Hannibal.....	F. Janet Reid.....	Hannibal.
Mercer.....	H. P. Chesmore.....	Princeton.....	C. R. Buren.....	Princeton.
Miller.....	S. P. Hickman.....	Uman.....	G. D. Walker.....	Eldon.
Mississippi.....	A. J. Martin.....	East Prairie.....	W. P. Howle.....	Charleston.
Moniteau.....	J. B. Stewart.....	Clarksburg.....	W. R. Patterson.....	Tipton.
Monroe.....	S. M. Brown.....	Monroe City.....	M. C. McMurry.....	Paris.
Morgan.....	W. L. Hatler.....	Barnett.....	J. T. Beale.....	Versailles.
Nodaway.....	J. A. Larrabee.....	Barnard.....	F. R. Anthony.....	Maryville.
Newton.....	J. W. Lamson.....	Neosho.....	Horace Bowers.....	Neosho.
Pemiscott.....	D. B. Crowe.....	Caruthersville.....	J. G. Luten.....	Caruthersville.
Perry.....	T. M. Hadson.....	Perryville.....	F. M. Vellels.....	Perryville.
Pettis.....	W. C. Overstreet.....	Sedalia.....	W. J. Ferguson.....	Sedalia.
Phelps.....	W. H. Breuer.....	St. James.....	S. L. Baysinger.....	Rolla.
Platte.....	R. P. Davis.....	Woodruff.....	G. C. Coffey.....	Platte City.
Putnam.....	C. H. Carryer.....	Hartford, Mo.....	T. A. Townsend.....	Unionville.
Ralls.....	O. B. Hicklin.....	New London.....	T. J. Downing.....	New London.
Randolph.....	G. O. Cuppidge.....	Moberly.....	W. M. Dickerson.....	Renick.
Ray.....	Chas. B. Shotwell.....	Richmond.....	L. D. Greene.....	Richmond.
Reynolds.....	J. M. Lowery.....	Centerville.....	T. W. Chilton.....	Corridon.
Saline.....	D. C. Gore.....	Marshall.....	D. F. Bell.....	Marshall.
St. Clair.....	W. Cline.....	Appleton City.....	E. D. Miles.....	Oscarola.
St. Genevieve.....	M. Andre.....	St. Genevieve.....	F. E. Hinch.....	St. Genevieve.
St. Louis.....	F. L. Henderson.....	Century Bldg.....	T. A. Hopkins.....	Century Bldg.
St. Louis Co.....	H. G. Wyer.....	Kirkwood.....	H. T. Randle.....	Clayton.
Schuyler.....	J. T. Jones.....	Queen City.....	H. E. Gerwig.....	Downing.
Scottland.....	W. E. Alexander.....	Memphis.....	O. F. Pile.....	Memphis.
Shelby.....	H. C. Vaughn.....	Shelbina.....	A. M. Wood.....	Lentner.
Stoddard.....	D. R. Corbin.....	Bloomfield.....	Jno. Ashley.....	Bloomfield.
Sullivan.....	J. C. Kessenger.....	Milan.....	J. S. Montgomery.....	Milan.
Warren.....	W. J. Alexander.....	Marthasville.....	E. A. Fluesmeier.....	Wright City.
Washington.....	J. A. Eaton.....	Belgrade.....	W. S. Smith.....	Belgrade.
Wayne.....	L. M. Pettit.....	Greenville.....	I. N. Barnett.....	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

COUNTY.	DATE OF MEETING.
Adair.....	Quarterly.
Atchison.....	Quarterly. January, April, July, October.
Audrian.....	Monthly. First Monday.
Barton.....	Monthly.
Bates.....	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone.....	Monthly. First Monday.
Buchanan.....	Semi-Monthly. First and Third Friday.
Butler.....	Monthly.
Caldwell.....	Quarterly. July, October, January, April.
Callaway.....	Monthly. Second Thursday.
Camden.....	Quarterly. January, April, July, October.
Cape Girardeau.....	Monthly.
Carroll.....	Monthly. Second Tuesday.
Cass.....	Quarterly. First Thursday of March, June, Sept., Dec.
Chariton.....	Monthly. Last Thursday.
Clark.....	1st Mondays Feb., Apr., June, Aug., Oct., Dec.
Clay.....	Monthly. Last Monday.
Clinton.....	Monthly.
Cole.....	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper.....	Monthly. First Tuesday.
Crawford.....	Quarterly. First Tuesday. Apr., July, Oct., Jan.
Current River.....	Quarterly. August, November, February, May.
Daviess.....	Monthly.
Dunklin.....	Monthly.
Grundy.....	Quarterly. July, October, January, April.
Henry.....	Monthly. Second Tuesday.
Holt.....	Quarterly. January, April, July, October.
Howard.....	Monthly. Third Tuesday.
Howell.....	First Thursday of Dec., Feb., Apr., June, Aug., Oct.
Iron.....	Monthly. First Saturday.
Jackson.....	Semi-Monthly. Second and Fourth Thursdays.
Jasper.....	Semi-Monthly. First and Third Mondays.
Jefferson.....	Monthly.
Johnson.....	Quarterly. June, September, December, March.
Knox.....	Monthly.
Laclede.....	Semi-Annually. First Mondays May and November.
Lafayette.....	Monthly.
Lincoln.....	Monthly.
Linn.....	Quarterly. October. January, April, July.
Livingston.....	Monthly. Second Thursday.
McDonald.....	Monthly. First Wednesday.
Macon.....	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison.....	Semi-Monthly. First and Third Monday.
Maries.....	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion.....	Monthly. First Friday.
Mercer.....	Monthly. Second Thursday.
Miller.....	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi.....	Monthly. First Monday.
Moniteau.....	Quarterly. March, June, September, December.
Monroe.....	Quarterly. First Tuesday of April, July, October, Jan.
Morgan.....	Quarterly. First Wed. of March, June, Sept., Dec.
Newton.....	Monthly. Second Tuesday.
Nodaway.....	Monthly. Second Tuesday.
Pemiscott.....	Monthly.
Perry.....	Monthly.
Pettis.....	Monthly.
Phelps.....	Quarterly. March, June, September, December.
Pike.....	Monthly.
Platte.....	Monthly. First Wednesday.
Putnam.....	Monthly. First Wednesday.
Ralls.....	Quarterly. January, April, July and October.
Randolph.....	Monthly.
Ray.....	Monthly. Third Wednesday.
Reynolds.....	Quarterly. January, March, June, October.
Saline.....	Monthly. Second Tuesday.
St. Clair.....	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Genevieve.....	Monthly.
St. Louis.....	Weekly. Saturdays.
St. Louis County.....	Monthly. Second Wednesday.
Schuyler.....	Semi-Monthly. July and December.
Scotland.....	Monthly. Second Tuesday.
Shelby.....	Quarterly. June, September, December, March.
Stoddard.....	First Wednesday in March, June, Sept. and Dec.
Sullivan.....	Monthly.
Warren.....	Monthly.
Washington.....	Monthly. First Saturday.
Wayne.....	Monthly.

AMERICAN MEDICAL ASSOCIATION

Next Annual Meeting at Portland, Oregon, July 11th to 14th, 1905.

President-Elect: LOUIS S. McMURTRY, Louisville, Ky.

President: JOHN H. MUSSER, Philadelphia, Pa.

First Vice-President: EDWARD JACKSON, Denver, Colo.

Second Vice-President: JAMES HALL BELL, San Antonio, Texas.

Third Vice-President: F. C. SHATTUCK, Boston, Mass.

Fourth Vice-President: B. C. PENNINGTON, Atlantic City, N. J.

Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Excelsior Springs, May 16, 17 and 18, 1905.

President: JABEZ N. JACKSON, Kansas City.

Vice-Presidents:

S. M. BROWN, Monroe City; H. W. LATHAM, Latham; T. E. POTTER, St. Joseph;
W. S. THOMPSON, Armstrong; J. C. ROGERS, Kansas City.

Secretary: C. M. NICHOLSON, St. Louis.

Assistant Secretary: E. J. GOODWIN, St. Louis.

Treasurer: J. FRANKLIN WELCH, Salisbury.

STANDING COMMITTEES.

Committee on Scientific Work:

C. M. NICHOLSON, Chairman; J. N. FRANKENBURGER and M. P. OVERHOLSER.

Publication Committee:

C. M. NICHOLSON, Chairman; C. LESTER HALL, WOODSON MOSS, ROBERT T. SLOAN, F. J. LUTZ, M. P. OVERHOLSER and L. A. TODD.

Committee on Public Policy and Legislation:

J. N. JACKSON, Chairman; C. M. NICHOLSON, HERMAN E. PEARSE, FRANK J. LUTZ and TINSLEY BROWN.

Committee on Medical Education:

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Committee on Arrangements:

T. N. BOGART, Chairman; J. T. RICE, Secretary; I. J. JONES, F. H. MATTHEWS,
J. M. ALLEN, J. H. ROTHWELL, GALVIN ATKINS, J. J. RICE,
W. L. WYSONG and ERNEST LOWREY.

COUNCILLOR DISTRICTS AND LIST OF UNORGANIZED COUNTIES.

FIRST DISTRICT.—F. B. HILLER; solidly organized.

SECOND DISTRICT.—J. B. BRUMMALL; solidly organized.

THIRD DISTRICT.—E. H. MILLER; DeKalb, Gentry, Harrison, Worth.

FOURTH DISTRICT.—C. H. WALLACE; Andrew.

FIFTH DISTRICT.—L. W. DALLAS; solidly organized.

SIXTH DISTRICT.—WOODSON MOSS; solidly organized.

SEVENTH DISTRICT.—W. B. DORSETT; St. Charles.

EIGHTH DISTRICT.—F. J. LUTZ; Franklin, Gasconade.

NINTH DISTRICT.—B. M. HYPES; solidly organized.

TENTH DISTRICT.—J. J. NORWINE; Scott, New Madrid, Bollinger, Center, Ripley, Francois.

ELEVENTH DISTRICT.—W. S. ALLEE; Osage.

TWELFTH DISTRICT.—R. D. HAIRE; Benton.

THIRTEENTH DISTRICT.—M. P. OVERHOLSER; solidly organized.

FOURTEENTH DISTRICT.—A. R. SNYDER; Berry, Lawrence, Dade, Cedar, Vernon.

FIFTEENTH DISTRICT.—Hickory, Stone, Taney, Greene, Christian, Dallas, Polk.

SIXTEENTH DISTRICT.—R. L. JOHNSON; Pulaski, Webster, Ozark, Dent, Texas, Wright, Douglas, Oregon.

JOURNAL MISSOURI STATE MEDICAL ASSOCIATION.

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ORIGINAL ARTICLES.

PRESIDENT'S ADDRESS*.

By JABEZ N. JACKSON, M. D., Kansas City.

As followers of the healing art we have reason to be proud of the rapid and eventful advance which medicine, both as an art and as a science, has made in the past century, and particularly in the last quarter thereof. The practice of medicine in one form or another is, perhaps, one of the oldest of all professions. Certainly its recorded history dates back many centuries, and its development even then indicates other centuries of previous study. In the archives of its recorded achievements in these ancient days, are found the names of many illustrious disciples whose greatness is recorded as well in the pages of general history, and some, indeed whose fame was so great as to connect them in the lay mind with those gods of old mythology, masters as well in earth and sky. It is noticeable that many of the earlier leaders in the healing art were known as well as masters in the realm of general philosophy, and like the philosophy of these early days medicine was a strange compound of

theoretical mysticism and empiricism, in which was mingled a little truth, many vagaries and much falsehood. Their ideas of physical conditions were largely the evolutions of metaphysical conceptions with little and oftentimes nothing of material foundation. To us, in these days of scientific investigation, there is in their work much to amuse but little to instruct. And yet when viewed in the light of the general development of those times there is much to admire and to commend, whose study is well worth the time of our leisure hours. In fact, there are many examples of the *art* of medicine even in these crude days of mental evolution which evoke our full amazement, though as a *science* progress was scarcely even begun. And yet withal it is evident that the disciple of medicine was even in these days looked up to with awe and veneration, and commanded a respect which in this day of scientific achievement we can but envy in surprise.

* Delivered at the annual meeting of the Missouri State Medical Association, Excelsior Springs, May 17, 1905.

The progress of medicine toward recognition as a definite part of true science has been, however, almost en-

tirely •the result of the work of the past one hundred years, during which time more absolute advancement has been made than in all the centuries upon centuries which had gone before. The battle-cry of freedom lifted from the shores of this grand country was echoed and re-echoed through the length and breadth of every land, and became the slogan of a new era of activity no less in the realm of mental endeavor than in that of politics. Minds long shackled by the iron bands of conventionality, and investigation restrained by the restrictions of prejudice and superstition, caught the breath of the new inspiration and spread their wings for the higher realms of absolute knowledge. For beliefs before handed down without question and accepted in blind faith, the freed intellect now demanded proof and demonstration. Ignorance and empiricism were forced to yield their prestige and to submit their claims to the cold court of scientific research. Cherished theories of ages were thus wrecked in a day, but in their ruins arose the marble palace of Truth. Laboratories and museums, the test tube and the crucible, the microscope and the stethoscope have become the agencies through which the true has been separated from the false. Dogmatism has been forced to yield to demonstration, and lo! in a few brief years medicine has blossomed forth as a *science*, new and incomplete 'tis true, but already recognized and welcomed by its elder sisters in the family of facts. To enumerate its scientific achievements in this brief time would be an endless task. Sufficient to cite alone the discovery of the existence of germ life,

and the evolution of the knowledge of its pathogenesis, and the patient researches which led to the ways of prevention and to the ways of cure. Is it not grand enough glory for a century's satisfaction to know that through these efforts the black cloud of pestilence has been lifted from the face of the earth; that cholera, with its agonizing fatality, has practically ceased to exist wherever the intelligence of the people has been willing to accept and to follow the wisdom of medical instruction; that the scourge of smallpox, bringing death or disfigurement, has been so shorn of its terrors that even when it does lift its isolated head it is as harmless as a domesticated pet; that yellow fever is no longer known on the shores of modernized countries; that even "the great white plague," consumption, is being so brought within control that in scientific medical Germany it has been reduced approximately eighty-four per cent; and that diphtheria, that dread disease whose very mention brought the pallor of terror and despair to the loving mother's face, has come to be but as a zephyr's ripple on the placid sea of childhood's voyage?

And yet, fellows of the medical profession, as we face the conditions which confront us today, do we find outside our own consciences the evidences of similar improvement in the recognition of our art? Do we find that, proportionate with our increase in scientific exactness, there has come an exaltation in the honor of our name? Do we find in the hearts of the people whose longevity has been increased, whose mortality and agony has been reduced, and whose material

prosperity has been enriched—do we find here that gratitude and praise which in our own thoughts we could but feel were due? Do we find the names of *our heroes*, whose learning and whose labor, whose exposure to danger and whose sacrifice of pleasure, nay of life itself, have yielded these blessings to mankind—do we find these names in honor enshrined in the Temple of Fame, or commemorated by marble shafts which raise their lofty peaks to Heaven, beside those of the warrior chief and the statesman famed? In honesty and in candor with the people and with ourselves, there is but one answer to these questions, and sadly that is, No. And yet in this answer I trust we breathe not the spirit of pessimism, nor feed our discontent with railing or complaint. For while conditions are not such as our pride and spirit might desire, yet the explanation is found rather in the fact that we have not been understood than that we have been maligned. Nor is it strange that a science which deals with the secret mechanism of life, strange and oftentimes incomprehensible even to the master student's mind, should be poorly comprehended by those who know life but in the living? The greatest minds have ever been mysteries to those of other mould; and recognition is oftentimes tardy to achievement in its time. The very ethics of our practice has compelled reticence and restraint where modest genius gives its life in love, unknown, unhonored and unsung. These traits we cultivate and their fruits we eat, and they satisfy our conscience though they starve our pride. So, for ourselves, there will ever be satisfaction

in the consciousness of the work which we have done, knowing that with time and enlightenment will come the honors which are due.

But from the standpoint of the mission whose fulfillment is our dream, there comes a more practical suggestion whose consideration we must approach. Too long we have lived in seclusion, within the limited shell of our own profession, content with the discharge of individual duty to the clients whom we serve; too much have we been absorbed with the problems which our own practices present; too limited our study to the science which we serve. And in the meantime, through our isolation, dogmas and creeds, quacks and impostors have sprung up throughout the land, and, masquerading under the guise of new research, have come to bar our progress and to thwart our plans. With cunning creeds of sophistry they seek to deceive the people and to steal the cloak of truth. With boasting claims of vain glory they constantly fill the public ear; with spreading columns of advertisement they fascinate the credulous eye, and with brazen effrontery purchase the endorsement of respectable men. With seductive proffers of commission they extend their trammel net, and with fees for advertising subsidize the public press. Even in the halls of legislation they seat their purchased slaves, and fill the aisles and lobbies with their agents in disguise. Even lawyers of distinction, for retainer-fees assist, while preachers of the gospel oft become their secret aides. Quackery is rampant, and, hand in hand with commercialism, its encroachments threaten no

less the honor than the life of our profession; while the people, who are its victims, sit idly by, unconscious (apparently) of the dangerous tendency of its course. Break down the barriers which scientific medicine has erected for the preservation of human life, and what would Christian Science and osteopathy do in the face of a devastating scourge of cholera? Remove the guards which the watchful profession has set in the quarantine of our land, and what would the advertising quack or magnetic healer do to cope with the horrors of bubonic plague? Wipe from memory the work of Walter Reed and his heroic band of investigators, and hear the business interests and the public press lift to high heaven their lamentations over business paralysis following an epidemic of yellow fever in our southern states.

Surely, could the people but go back to where they were, they might more forcibly realize where they are. And if this be true of yesterday, what will be true to-morrow as the result of the obstructions of to-day? Surely, medical men of Missouri, the time has come for action—action for our science's glory and the public weal. The time has passed when we

can longer rest contented in the tranquil peace of our individual practice. The time has passed for petty jealousies which rend in twain our harmony and bring discredit to our grand profession. The time has passed for indifference to the greed of graft, which steals our honor through the elusive siren of success. The time has passed for individualism when professionalism is assailed. What we know and all we know is the heritage bequeathed us by a profession whose milk has made our blood; and to this glorious parentage we owe devotion and the honor of our lives; and to her sons, our brothers, we owe the love to brothers due. Then, fellows of the Missouri State Medical Association, we must *organize* in harmony and in unity, from north to south, from east to west—in county, state and nation. And, in the language of another may I say, "Ours is a noble profession; be worthy of it. Master it, advance it. Devote ourselves to medicine and to humanity. Let success take care of itself. Then at all times we shall be able to say:

"Serene I do my task and wait,
Nor care for wind or tide or sea;
I rave no more 'gainst time or fate,
For lo! *my own shall come to me!*"

SYMPOSIUM ON THE ST. LOUIS WATER SUPPLY.*

ST. LOUIS WATER SUPPLY.

By Edward E. Wall, Esq., Assistant Water Commissioner of St. Louis.

The Water Commissioner, not being able to be present this evening, has asked me to prepare and read a short paper on the water supply of the city. I shall endeavor to give you but a very superficial sketch of the salient features of the waterworks generally, with special reference to some of the mechanical and practical characteristics of the clarifying plant and process.

For the past ten years the entire water supply for the city of St. Louis has been taken from the Mississippi river at the Chain of Rocks, some eleven miles above the Eads Bridge. For twenty-five years previous to the operation of the Chain of Rocks station the intake was at Bissell's Point, about seven miles further down the river.

The Chain of Rocks station has a pumping capacity of 160,000,000 gallons every twenty-four hours, the pumps being supplied through a seven-foot tunnel connecting the pump well with the intake tower. The tower stands well towards the main channel of the Mississippi, about 1,500 feet from the Missouri shore and is equipped with gates at various elevations so as to draw water from near the surface of the river at its various stages. The tunnel is divided into two sections, the river section and the shore section. The river section is driven through the limestone bed of the river, some fifty feet below

the river bottom, and is connected to the shore tunnel, which is about thirty feet nearer the surface, by what is called the uptake shaft. This shaft is eight feet in diameter and is open to the surface. It drains both the river and the shore tunnel and is connected to another larger shaft forty feet away, called the pit pump shaft, where pumps may be set in case it becomes necessary to pump the tunnel dry for examination or repairs. The flow of water through the tunnel is by gravity and it will supply about 150,000,000 gallons per twenty-four hours at the lowest stage of the river.

The engines deliver the water to the settling basins, through a nine-foot conduit which is connected by gates to each of six settling basins, 400 feet by 670 feet and about sixteen feet deep. The basins collectively will hold 170,000,000 gallons. From these basins the water flows by gravity through a masonry conduit, nine feet by eleven feet, as far as the Baden High Service Station four miles below the Chain of Rocks. From there the conduit is reduced in size to seven and three-quarters by nine feet, for three miles to the Bissell's Point High Service Station. Along the east side of this conduit is the Waterworks Railroad, which delivers freight to the stations and carries the employes between stations. Passenger cars are operated by electricity, while all freight cars are hauled with a steam locomotive.

At the Baden Station are six triple expansion pumps with an aggregate capacity of 80,000,000 gallons per twenty-four hours. These pumps

* Read before St. Louis Medical Society April 15, 1904.

operate under a steam pressure of 140 pounds and deliver water at a pressure of 125 pounds per square inch. These pumps supply water to the high level districts of the city—principally in the western and southern part.

At the Bissell's Point Station there are two engine houses, each containing three pumping engines. In No. 1 engine house are three triple expansion engines, similar to the Baden pumps, with a total capacity of 60,000,000 gallons daily. In No. 2 engine house are three beam and fly-wheel engines, pumping about 50,000,000 gallons daily. These engines operate under a steam pressure of thirty-five pounds. All engines at Bissell's Point deliver water at a pressure of 100 pounds per square inch and supply the low level districts of the city. The average pressure of 548 gauge readings taken over the entire city is fifty-five pounds per square inch—the maximum being 110 pounds and the minimum twenty-five pounds. There are about 730 miles of cast-iron pipe of all sizes in the city, belonging to the department, on the lines of which are 8,438 fire hydrants, 104 of which belong to private parties.

The daily consumption of water will average over 70,000,000 gallons throughout the year, the maximum rising as high as 110,000,000.

The method of clarifying this amount of water daily is the most interesting feature of the St. Louis Waterworks at present and is deserving of much more favorable notice than has so far been given to it. Simply to say that the water is clarified by the use of lime and sulphate of iron conveys no idea of the beautifully simple and harmless process

that is actually in use. The coagulation house is built on the river bank over the uptake shaft and is divided into three main divisions, the storage bins for lime in one end, the bins for sulphate of iron in the other end, while the central portion of the building is used for the mixing tanks, pumps and machinery. Sulphate of iron readily dissolves in cold water, so that it can be quickly put into solution, ready to add to the raw water. The tanks for dissolving the iron are four feet by five feet by three feet deep with an outflow pipe two feet above the bottom. They are supplied with a continuous flow of cold water through a series of small nozzles distributed over the bottom of the tanks. Each tank will dissolve a maximum of sulphate of iron of 1,800 pounds per hour.

The lime tanks are circular, six feet in diameter, three feet in depth, provided with revolving rakes or stirrers. These tanks are supplied with water at a temperature of about 120° F, for the reason that lime slakes too slowly in cold water to make a continuous process practicable. The outlet pipes are two feet above the bottom. To undertake to describe all the details of the plant would extend this paper too much, but the exceedingly simple way in which the lime and iron are introduced into the raw water in proper quantities, is especially worthy of attention.

Both the lime and sulphate of iron are weighed out in proper amounts, corresponding to the quantity of water being pumped every five minutes at that time, and also according to whatever ratio of chemicals it is wished to use. These weighed charges are

dumped into their respective tanks every five minutes, sufficient water being furnished to all tanks to entirely dissolve the sulphate in the one case, and to slake the lime in the other, by the time it is necessary to add the next charge. The amount of water supplied the tanks need not be constant so long as enough is added to take care of the chemicals. This method gives practically a uniform supply of iron sulphate in solution and of milk of lime as long as the pumping rate and the chemical ratio remain unchanged—although the strength of the solutions themselves will vary with any change in the flow of water supplying the tanks. This simple and original scheme does away with all need of meters, measuring boxes or weirs; an ordinary platform scale for weighing is all that is necessary.

The iron solution flows from the tanks through a pipe down the up-take shaft into the tunnel, where it mixes with the river water on its way to the pumps. The milk of lime is pumped by a centrifugal pump from the coagulating house to the delivery well, where it mixes with the discharge from the low service pumps.

The water then flows by gravity into the settling basins, and in its passage through these basins it loses all its suspended matter, part of the dissolved solids and practically all its bacteria. The walls between basins have been cut down so as to form weirs 610 feet long, over which the water flows from one basin to another. The process taking place is one of flowing sedimentation, the

water entering the basins at one end, flowing slowly through all of them, and being drawn out of the last basin clear and wholesome.

For a period of 300 days from March 23, 1904, to January 15, 1905, the cost of chemicals alone was \$3.56 per million gallons pumped into the mains. The addition of the cost of necessary labor to operate the coagulating plant brings the cost per million gallons to \$4.07 $\frac{3}{4}$. Mr. Hazen of the hydraulic commission gives \$4.73 per million gallons, as the cost of operating a filter plant.

A great many difficulties have arisen during the building and operation of this temporary plant, which could not have been foreseen, and which had to be overcome by original methods, since there were no precedents to follow and no previous experimenter's work to serve as a guide. The water at times has been far from clear, but at all times has been an improvement over the raw water. The work so far as it has progressed and as successful as it has proven to be, has been the result of united, persevering, and intelligent efforts on the part of all the employees connected directly with the clarification work of the department—and no one man is entitled to arrogate to himself all the credit of this great achievement. For it is a great achievement, and while there remain many important problems yet to be solved, the main and most important of all may be considered to have been worked out—the evidence of which is daily before your eyes and its effect plainly shown in your weekly health reports.

METHOD OF CLARIFICATION OF THE ST. LOUIS WATER SUPPLY.

*By John F. Wixford, Esq., Chemist to the City
Waterworks.*

I have here three jars of river water, and will show you three different methods of clarifying, namely: the alum method, the Quincy process, and the method employed at St. Louis. I will show you the different ratio of lime used in St. Louis compared with the Quincy method.

To the first jar add 3 grains of sulphate of aluminum to the gallon; for the Quincy method I will add to the second jar 3 grains of ferro-sulphate and 1 grain of lime; and for the third jar, representing the process used in St. Louis, I will add 2 grains of ferro-sulphate and 6 grains of lime. While settling I will try to explain what the reactions are.

In the experiments here I am using a solution of lime containing about 0.13 of 1 per cent. of lime for convenience, but at the works we do not use limewater, but milk of lime. It is necessary to keep the water agitated about three minutes in the process used at St. Louis. The reason for this stirring is that the hydrate of iron is precipitated by a portion of the lime, and if I allow the water to settle at once the iron precipitate will settle down before the action of the balance of the lime upon the constituents of the water is finished. The crystals formed in this reaction have a tendency to attach themselves to the ragged surfaces of the iron hydrate in the water with which they come in contact, and will go down with this precipitate, leaving the water perfectly clear after a few minutes. If it is not stirred the water will settle

pretty clear at first, and then become milky afterward. The object of the stirring is to keep the hydrate of iron in suspension until the lime reactions are complete, and thus furnish surfaces to which the crystals of the lime reaction may stick. You may think I am adding a great deal of lime, and that this will make it pretty expensive; but for every grain of lime I add up to caustic alkalinity it is civic economy, for it is a saving of a great deal of soap. It is also economy in the sense that for every grain added, nearly two grains of calcium carbonate are removed. It is this which forms boiler scale, a non-conducting substance. Much has been said about the sulphate scale, a hard scale, but it is not such a bad conductor as the porous carbonate scale. We admit the iron into the water before it goes into the pump, and the lime after it has passed through the pump. The reason for admitting the lime after it passes through the pump is because just as they come out of solution the carbonate of lime crystals have a tendency to stick to everything they strike, and the pumps will soon be coated all over with the carbonate of lime scale. Now, if you will look at these jars, you will have to say that St. Louis is ahead.

Now as to the reactions. In the alum process hydrate of alumina alone carries down the suspended matter. In the Quincy process there is some bicarbonate of iron formed, and the precipitate of iron hydrate is the only precipitate that does the work, lime being added only in sufficient quantity to change the bicarbonate of iron to iron hydrate. In our process we add the ferrous sul-

phate and we change the water into an ordinary chalybeate water; after that we add a large excess of lime. A portion of this lime combining with the iron forms hydrate of iron, a strong coagulant, and some insoluble calcium carbonate; another portion acts upon the calcium bicarbonate left in the water to form insoluble normal calcium carbonate. It further changes the magnesium constituents into insoluble magnesium hydrate. Other portions act upon the suspended silicates and upon the silicic acid, and also upon the organic compounds. All of these last precipitates are themselves coagulants. You know very few lime salts are soluble, and you can add almost anything to the raw water and eliminate it. You can put copper, lead or almost anything in the river water, and after this treatment you will find it is gone.

Now, as to the cost of this process. Those three grains of alum would cost as much as fifteen grains of lime; the two grains of ferro-sulphate and the six grains of lime in the St. Louis process cost as much as ten grains of lime; so that with less cost we get clearer water. With this method we get clear water in six to ten minutes, while with the other methods it will require eight to ten hours. This process is more efficient in that it not only clarifies, but purifies the water, and it is also a softening as well as a purifying process. To determine the lime to be added we take a series of jars and add 1 grain, 2 grains, 3 grains, etc., to 6 grains of lime per gallon. After standing awhile there will be noticed a break in the series somewhere beyond 4 grains per gallon. Before that break 1 grain will

do more work in clarifying than 2 grains or 3 grains per gallon; beyond the break all clear well. Before the break there is none of the caustic alkalinity; beyond that point there is caustic alkalinity. So we select the jar before the caustic alkalinity as the standard by which to gauge the amount of lime to be added. When treated by this process, as we have treated it here, you will find the water as free from bacteria as any filter would produce. But the city cannot expect to get bacteria-free water in the present state of the system. The bottom of the basins contain some mud; we may take up some bacteria. In removing the bacteria we don't kill them by poisoning them; they get tangled up in the coagulum and are carried down mechanically. You can take some of the mud from the bottom of a basin and make a smear and you will find millions. It is merely a process of clarification and purification without a filter. I do not know of any place where they use this process; it is a combination of several processes. We do not aim to get any caustic alkalinity. We aim to keep free lime out of the water. Up to the point of caustic alkalinity every grain of lime we add is a big economy; beyond that it is a waste of material.

RESULTS OF BACTERIAL EXAMINATION OF CITY WATER BEFORE AND SINCE CLARIFICATION.

By Dr. C. A. Snodgrass, City Bacteriologist.

Possibly no water supply has called for such an outlay of money nor has had brought to it a wider array of talent than that of St. Louis. You are all acquainted with the investiga-

tion, and whatever the results may be the entire scientific world feels it owes a debt of gratitude to St. Louis and Chicago. It would take hours were I to try to discuss this subject fully; therefore, I will make only a few plain statements. You want the findings before the present method of purification was instituted and those since it has been employed. I have copied here all the bacteriological findings in the second investigation, March 22d to the last of November, 1900; also the bacteriological findings in the third and last investigation, done in September, October and November. I will just give you the totals. Bacteriological examinations are made along two lines, quantitative and qualitative. The first is done for two reasons, to ascertain if there has been pollution from sewage or washings from the soil, and to obtain information of the efficiency of the method used in purification. Recently some eastern workers have taken up the subject of some anaerobic organisms. In Havana, at the meeting of the A. P. H. A., it was stated that we were coming back to the old coli determinations, and the committee on water purification reported that it considered the colon bacillus the best index to sewage pollution. The bacterial removal is about the best guide to the efficiency of any system of purification. In no work, however, does the individual factor play a more important part. If two men collected samples of water at the same minute, frequently they may vary 8,000 to 10,000 organisms in their count; therefore, it would be useless to read what my findings were as compared with those of some other

man. In 1901, from the intake tower to the reservoir, for seven weeks there was a removal of 48 per cent. In the reservoir the water stood for seventy hours. I asked the water commissioner yesterday for the accuracy of that figure, but he could not be certain about it. I believe now it stands about thirty hours. On page 205, volume I, of the Chicago Drainage Canal proceedings, it is stated that from the intake tower to laboratory tap at the old city hall there was a total bacteriological removal of 90 per cent. I will now go into the third period, the last three months of the investigation. I find here the bacteriological removal for September from the intake to the outlet chamber was 48.43 per cent.; from the intake to tap for September was 83.88 per cent.; October, from the intake to outlet chamber, 85.6 per cent., and for November 81.5 per cent. From the intake to the tap for October 95.9 per cent., and for November 93.2 per cent. For that three months the average removal from the intake to the laboratory tap was 92.64.

During the last year the work I have done was not for the purpose of getting new figures. I had so many other duties to perform that the board of health thought it wise to reduce that work to the minimum. With the modern method of finding the colon bacillus it can be found in almost every cubic centimeter of water. I have made weekly analyses for the past year. These analyses were for the purpose of ascertaining the efficiency of the present system. This method of clarification was instituted as a necessity. We felt that we had bathed in mud long enough. The

experts said we could go on and build basins and filter the water later, and I believe that was what the authorities were looking forward to. Then the question arose, if we got clear water whether it would be wise to add filter plants if the bacterial removal was sufficient to warrant the use of the present system. I have stricken out two of these months because the removal was so low that I felt there must be some error in technique. In one week in April the removal was only 75 per cent. from intake tower to the tap. The average removal of bacteria from the intake tower to the laboratory tap for the period of thirty-seven weeks was 94.6 per cent. (April 1, 1904, to March 31, 1905).

You will now ask if we are going to adhere to the present system; if so, how can we improve upon it. The only criterion to go by is the result of past experience. Mr. George Fuller, who has supervised the putting in of some of the largest waterworks in the country, says that the best that has been done by mechanical filtration is the removal of 96.4 per cent. Mr. Wixford, chemist of the water department of this city, has intimated that the basins were full of mud, and that if this mud was cleaned out it was his opinion that we would get better bacterial removal. It is not the system, but the operation of the system that keeps the bacteriological removal as low as it is. This treatment has no bactericidal effect. You have asked me for figures as to what was found before and since the introduction of the system, and I believe this is all that is necessary for me to say on the subject.

STATISTICS OF TYPHOID FEVER IN ST. LOUIS.

By Robert Moore, C. E., St. Louis.

The statistics of typhoid fever in St. Louis are based on the mortality records found in the reports of the St. Louis Health Department. To obtain the rate per unit of population, which in this case has been taken as 10,000 persons, the writer has, when possible, used the population values of the United States census, the figures for the intercensal years being obtained by scaling from a carefully drawn diagram.

The series begins with the year 1850. But as before this time typhoid, or enteric, fever was not, in official reports at least, differentiated from typhus and simple continued fevers, the figures for earlier dates, even if we had them, would have little or no value.

St. Louis in 1850 had a population of a little less than 78,000 (77,860). The preceding year had been deeply marked in black; first, by the great fire (which, on the night of May 17, 1849, destroyed twenty-three steamboats and many blocks of buildings in the business district of the city); and, second, and more strongly, by one of the most serious epidemics of Asiatic cholera of which we have a record. This visitation began on the last week of 1848, and steadily increased until in July, 1849, the deaths from this single cause reached the alarming figure of 145 in one day (July 10th), a rate which, if continued for a year, would have destroyed three-fourths of the population. But though this was its culmination, it remained for years an important factor in the life

history of the city. In 1850 the death rate from this cause was over 11 per 1,000; in 1854 it assumed epidemic proportions (14.22 per 1,000), and it was not until after 1855 that it practically disappeared. As typhoid fever is promoted by the same conditions and carried by the same vehicle as cholera, the presence of the latter disease is a fact which cannot be overlooked in a study of the former.

In 1850 the city waterworks, which dated from 1832, consisted of a small pumping plant located at the foot of Bates (now Dickson) street, two storage reservoirs at Twentieth and Benton streets, and a few miles of small pipes. The storage reservoirs soon filled up with mud, which there were no means of removing, and the water was delivered to consumers in practically the same condition in which it was taken from the river. The principal source, however, of the domestic water supply was from wells, which were always shallow and easily polluted.

Though for eighteen years the city had a public water supply, not a single sewer in the modern sense had yet been built. It is true that a few stone or brick culverts had been built by private parties across the levee to drain property adjacent thereto, but they were not intended for the reception of house drainage, and, as a rule, the ordinances which authorized their construction expressly forbid any such use of them. But in this year, March, 1850, the first sewer, known as the Biddle street sewer was put under contract. A few months later (July-August, 1850), ordinances were passed establishing a system of sewers for the drainage of the territory between

Biddle and Poplar streets and between Ninth street and the river. During the latter part of 1851 the Biddle street sewer was put in service, and from time to time thereafter the other sewers for which provision had been made were added to the system. But until their completion house drainage was, of course, impossible, and the use of the privy vault for the final disposal of all household wastes was universal.

The presence of a city water supply, which could only pass off on the surface or into the ground and thence to the wells and privies, greatly intensified the inevitable dangers of such a situation. As a consequence much trouble was experienced throughout the city from standing water in cellars, even in the higher parts where such a thing would hardly be expected. In the year preceding (January 27, 1849), the *St. Louis Republican* had said: "There are few blocks in the city where there are not cellars containing more or less water. A large number are full, or nearly so, particularly east of Fourth street, that is to say, on the hillside."

Under such conditions the very high typhoid rate, to-wit, 25.7 per 10,000, is not surprising. In the following years, however, as the sewers came more and more into use, the typhoid rate rapidly declined. True, there are fluctuations, one of them in 1854, when, as already noted, there was an epidemic of cholera. But the general tendency is sharply downward until, in 1861, we find a rate of 5.95, or only 23 per cent. of the rate ten years before.

And now for some years an upward tendency appears until, in 1866, when

again there was an epidemic of cholera, we have a rate of 19.63. For this reaction the chief cause is, no doubt, to be found in the building of sewers in the north part of the city, notably the Chambers street and Rocky Branch sewers, which, in 1861, were already well advanced, and the consequent pollution of the river immediately above the waterworks intake.

The danger of such pollution had already been recognized, and as far back as 1857, the City Engineer, Mr. Hassendeubel, had recommended to the Council the building of new works with an intake station at a "point north of Bissell's Ferry." In 1863, an act of the Legislature authorized the appointment of a Board of Water Commissioners and the construction of new works, located at Bissell's Point, which at that time was above all the city sewers.

Meantime the typhoid rate had fallen below that of 1866, but was still very high, the average of the four years 1867 to 1870, inclusive, being 11.66 per 10,000. But in 1871, during which year, in May, the new works at Bissell's Point were put in service and the old works abandoned, the rate at once fell to 6.78, the lowest rate since 1862. Except for a slight rise (74-100) in 1877 this downward tendency continued until, in 1878, the rate had fallen to 2.22, or less than 21 per cent. of that of 1870, and the lowest ever reached up to that time in the history of the city.

After this time until the end of 1871 the rate was somewhat higher than in 1878, though still very low as compared with the preceding periods, the mean for the thirteen years, 1877-1891 inclusive, being 3.66 per

10,000 living—a rate which, excepting in the two years 1876 and 1878, had never been reached before. But as time passed and the population north and west of the waterworks became more dense there was a gradual introduction of sewage into the streams entering the river above Bissell's Point, notably into the nearest one, namely Harlem Creek, which had in effect become an open sewer for a drainage area of nearly six and one-quarter square miles (3,800 acres). The sharp rise in the typhoid rate from 3.57 in 1891 to 9.80 in 1892 was so clearly due to this cause that the water commissioner was induced to place at Harlem creek a pump by which the dry weather flow of the stream was delivered into the river below Bissell's Point. The drop in the typhoid rate from 9.30 in 1892 to 4.43 in 1893, or more than 50 per cent., points unmistakably to the relation of effect to cause.

The Harlem creek pump was maintained until, in 1895, Bissell's Point was in its turn abandoned as the source of supply and the present intake station inaugurated at the Chain of Rocks, six and three-quarter miles further up the stream and above all present or prospective sewage originating within the city itself. This was accompanied by a drop in the typhoid rate in 1895 to 2.10, followed in 1896 by 2.03, in 1897 by 2.32, and finally in 1898 by 1.73, the lowest recorded rate in the history of the city.

Then came a period of five years (1899-1903) in which the rate increased slowly year by year until in 1903 it reached 4.65 per 10,000, the highest rate since 1892. During this period, viz., on January 17, 1900, the

Chicago drainage canal was put in service and no doubt contributed something to this rising rate. It will be noted, however, that the total increase (2.92 per 10,000) in this five years was only half the amount (5.73) produced in a single year by the pollution of Harlem creek. The year 1904, on the other hand, was marked by a decline to 3.54, which, however, if we except 1903 is still larger than the rate of any year since 1893.

If, now, we look back over the whole fifty-five years we find good reason for gratification and encouragement. In the first ten years (1850-59 inclusive) the mean typhoid death rate per 10,000 was 15.72; in the last ten years (1895-1904 inclusive) this rate was 2.84. In other words, for every hundred deaths from typhoid fever in the first decade there were in the last decade only eighteen.

But in addition to knowing our position with reference to our own past, we ought also to know how we stand in comparison with other cities. This question is in part answered by figures given in the "Abstract of the Twelfth Census" (1900), showing the relative rank in typhoid deaths per 10,000 living of fifteen of the largest American cities. In this series St. Louis is numbereight, that is it stands exactly in the middle. Those above us are New York, Milwaukee, Detroit, Buffalo, Boston, Chicago and Cincinnati. Those below us are Baltimore, Philadelphia, San Francisco, Cleveland, New Orleans, Washington and Pittsburgh. It is worth noting, however, that of those in this lower class four, to-wit, Philadelphia, New Orleans, Washington and Pittsburgh, as well as Cincinnati, in the upper class, are

now arranging to filter their supply, after which their positions on the diagram will be greatly changed, and St. Louis will no doubt stand relatively much lower.

To further show how American cities stand in comparison with the mother country the figures of typhoid mortality from 1850 to 1903 inclusive for London and for England and Wales as a whole, copied from the reports of the registrar general, are also given in the table.

From these it will be seen that, with rare exceptions, London—and substantially the same thing may be said of England and Wales as a whole—has always outranked St. Louis. For example, the average typhoid rate for London for thirty-five years, from 1869 to 1903 inclusive, is 1.92, whilst for the same period in St. Louis the rate was two and one-quarter times as great, or 4.34. In 1903 the rate for all England was 1, and for London .83 per 10,000, rates which have, so far as we know, never been equaled in any American city. When we remember that by far the larger part, say seven-eighths, of the London water supply is taken from the Thames, a small stream draining a dense population, these figures are very significant. The secret, of course, lies in the fact that for fifty years all the water taken from the Thames has been filtered.

So that, whilst St. Louis has accomplished much, it is very clear that her work is not yet done.

DISCUSSION.

Dr. Ravold said that the water supply of St. Louis is taken from the Mississippi river at a place known as The Chain of Rocks, fourteen miles

by river above the center of the city. The Mississippi river at this point is made up of a mixture, more or less intimate, of the waters of the Missouri, Mississippi and Illinois rivers. The Illinois and Mississippi unite at Grafton, Illinois, thirty-nine miles by river above St. Louis. The waters of the two rivers do not mix intimately at once, but flow along, the Mississippi river water hugging the Missouri shore and the Illinois river water the Illinois shore for many miles. The water of these two rivers, as a rule, is clear. Twenty miles below Grafton the Missouri river ("the Big Muddy") flows into the Mississippi, pushing the Mississippi and Illinois waters over against the Illinois shore, while the muddy Missouri water clings to the Missouri shore. Thus divided the three river waters flow along, somewhat mixed, but not intimately, until the intake of the present waterworks is reached. The intake tower of the waterworks is situated near the middle of the river, on the Missouri side, however, fifteen hundred feet from the shore. Inasmuch as the Missouri river water clings to the Missouri side of the river, the water at the intake tower is, for a greater part of the time, Missouri river water — biological and chemical investigations show about 70 per cent. of the time. However, whenever the flood volume of the Mississippi river or the Illinois river is high, either one of these river waters may prevail at the intake. The Missouri river water, from a biological standpoint, is the best of these three river waters, and the typhoid statistics of the city confirm this assertion. When the Missouri

water prevails at the intake, the typhoid death rate is low; when the Mississippi, and especially when the Illinois river water, since the opening of the Chicago drainage canal, enters the intake, the typhoid death rate is high.

From the river the water flows through a tunnel by gravity to the pumps, and is then lifted into six settling basins, each having a normal capacity of 56,000,000 gallons. During the three years in which he conducted the biological investigations (1899, 1900, and 1901-2), the water rested in the basins, on an average, seventy hours, Dr. Snodgras' contention to the contrary notwithstanding. Dr. Ravold received the information in an official communication from Mr. Ed. Fladd, the then water commissioner, who had thoroughly investigated the subject.

From the reservoirs, as Mr. Wall has explained, the water passes into an eleven-foot conduit to the high-service pumps at Baden, four and a half miles from The Chain of Rocks, and is pumped to the stand-pipe in the Compton Hill Reservoir Park. From here it is distributed into the western part of the city. The remaining water flows through a nine-foot conduit and empties into four reservoirs at Bissel's Point. Here it rests from three to four days on an average.

During the second period investigation, which Dr. Snodgras mentioned, samples of water were collected and plated on the spot from the following places: Intake tower in river; outlet of settling basins, Chain of Rocks; outlet of reservoirs, Bissel's Point; tap at old City Hall,

Market street; tap at 5946 Garfield avenue.

Per cent. of bacteria removed from river to outlet of settling basins, after water underwent quiescent sedimentation, 71 per cent.; outlet of reservoirs, Bissel's Point, 90 per cent.; tap at Market street, 92 per cent.; tap on Garfield avenue, 95 per cent.

In other words, from river to outlet of settling basins, 71 per cent. of bacteria were removed by sedimentation; and to consumer, 92—95 per cent.; 25 per cent. of the bacteria disappeared (died) in the pipes of the distributing system.

It will be seen from these figures that the present method of treating the water removes about 2 per cent. more bacteria from the river to the consumer.

He wished to express his very great admiration for Mr. Wixford's methods and the results so far obtained, and to congratulate him highly, especially for the betterment which is hoped for and promised in the future, when the engineering features of the experiments that are now being made will have been completed.

He wished to thank Dr. Bernays and his assistants for the very able and graphic chart presentations of the results obtained in the chemic examinations of the waters before and since the chemical treatment of the waters.

For Mr. Moore's able and concise paper on the typhoid statistics of the city he expressed great admiration. Of the chart of the typhoid statistics exhibited showing the rise and fall in the typhoid fever death rate, he wished to call particular attention to

the epidemic of typhoid, graphically shown, of the year 1892. In 1892 3,654 cases of typhoid fever, with 514 deaths, were reported to the health department by the physicians of the city. Just as soon as it was clearly established that a typhoid epidemic really existed, a committee from this society was appointed to investigate the source of the disease. After a careful investigation the committee came to the conclusion that the drinking water was polluted and was the source of the epidemic. A committee, composed of Dr. Charles E. Briggs, James M. Leete (both now deceased), Dr. Walter B. Dorsett and Dr. Wm. N. Beggs, together with the then sanitary officer of the health department, Mr. Charles W. Francis, visited the waterworks, then located at Bissell's Point. Standing on the bridge of the intake tower, they noticed a black streak of water in the yellow water of the river, and that a part of this black water ran into the intake. They followed this streak up the river about a thousand yards, and found it to be water discharged from Harlem creek into the river. Harlem creek drains a vast area in the northern part of the city, extending as far south as Cora place on Easton avenue, west to the cemeteries and east to Twentieth street. The sewage from this great area, together with offal from slaughter-houses and the manure from a number of large dairies built along the creek, all discharged into it, ran into the river, and was pumped into the water supply of the city! *We were drinking this frightful, deadly pottage!*

To the everlasting credit of this society, and especially to the untiring

energy and intelligent efforts of Dr. Leete, the city authorities were induced to build a dam across the creek near its mouth. Pumps were placed there, and the water lifted and discharged into the river *below* the intake tower. The result was magical. The typhoid death rate immediately declined. It was the end of the epidemic.

No more emphatic experiment has ever been carried out on human beings than demonstrated by this epidemic, of the danger of drinking polluted water. The sharp decline in the epidemic is clearly shown, graphically, upon Mr. Moore's excellent chart.

In 1895 the waterworks were moved up to their present site, The Chain of Rocks; and again on the chart you will note the steady decline in the death rate until, in 1899, the lowest point ever reached in the history of the city is recorded.

In January, 1900, the Chicago drainage canal was opened, and all the putrid and diseased filth of nearly 2,000,000 people discharged into the Illinois river and to the St. Louis water supply. Note the steady rise in the typhoid death rate as indicated by the chart. He emphasized the fact that the water at the present intake is a mixture of waters from three great watersheds, and that it fluctuates not only from day to day, but from hour to hour, the character of the water depending upon the amount of rainfall on the respective watersheds. A remarkable example of this occurred in February, 1900, shortly after the opening of the Chicago drainage canal, at which time the waters of the Illinois river

entered the intake of the waterworks. Early in February the three rivers were covered over with ice. A thaw occurred in the Illinois valley, breaking up the ice on the river and sending great volumes of dirty black looking water down the river. The Mississippi and Missouri watersheds were not affected by the thaw until later, and those two rivers remained frozen over. The inky Illinois river water reached the intake tower and prevailed there from February 12th to 20th. This was demonstrated not only chemically and biologically, but could be seen with the unaided eye in samples collected at various points along the three rivers, the intake and in the tap water. Typhoid fever increased within the incubation period of fourteen days, and for March, 1900, one hundred and seventeen cases of typhoid fever were reported to the health department—the greatest number of typhoid fever cases ever recorded for March in the history of the city.

To Mr. Benj. Schnurmacher, city counselor, and especially to Mr. Claflin Allen, associated city counselor, must be given the great credit of having brought about the gigantic biologic and chemic investigations carried out upon the waters of Lake Michigan, the canal, and the three great rivers.

We have heard the reports of the city chemist and the city bacteriologist as to the results obtained before and since the clarification methods of Mr. Wixford were introduced. It is well to get clearly in mind what these two sciences can afford us in reaching a conclusion as to the potability of a given water supply.

Chemistry, by the estimation of the quantities of chloride of sodium and of nitrogen as free and albumenoid ammonia, can assert that a water is sewage-contaminated, but whether of man, or other animal origin, it cannot tell. Further chemistry tells us nothing of disease-producing organisms in a water. It is, therefore, of very little value to us in arriving at a conclusion as to the healthfulness or unhealthfulness of the present supply.

Bacteriology can estimate, approximately, the number of bacteria in a given water, and as to the numbers of bacteria before and after treatment by clarification or filtration. It may be able, after finding the so-called mythical "index of sewage pollution" to declare that a water is sewage-contaminated; but inasmuch as it is unable to find the typhoid bacillus in a water, it is no more able than chemistry to assert positively that a given water contains the germs of this disease, or the contamination comes from man or other animals.

There are two known water-borne diseases—typhoid fever and cholera. Cholera is out of the question in this country. There remains typhoid fever; and neither chemistry nor bacteriology, nor both together, can detect the germ of this disease in water. They are, therefore, of little value to us in reaching a definite conclusion as to the disease-producing qualities of the present supply. This being so, have we any other method of arriving at a positive conclusion? We have. Test the water by making an animal susceptible to the disease drink it, and see if it produces the disease. Man is, however, the only animal susceptible to the disease.

For now a year or more a gigantic experiment has been carried on by the water department upon 700,000 human beings with the clarified city water. What is the result? The graphic chart and Mr. Moore's conclusions show. All who can see, can read it clearly written there. Among the 6 or 7 per cent. of bacteria which remain in the water after treatment, the typhoid fever bacillus still lurks.

We are all deeply grateful for what has been accomplished in the purification of the water supply by our able and energetic water commissioner, Mr. Ben Adkins; and I, for one, wish to congratulate him, not only for what is so far gained, but for the promises of betterment in the future. I believe that he and his able assistants will leave nothing undone to solve the problem of producing a clear and potable water out of the dangerous and ever-changing, tricky Mississippi water.

The sanitary intelligence of a community is estimated by its typhoid death rate, and, although we have not yet arrived, we are approaching that goal of intelligence.

Dr. W. C. G. Kirchner had occasion to make examinations of this water before the present system of clarification was instituted, and he had noticed the character of the water before it reached the intake. The visual tests conform in a measure to the bacteriological tests. The Missouri water containing much sediment is very turbid, while the Mississippi water is comparatively clear, and the mixture of the two streams can readily be seen. The Mississippi water hugs the Illinois for a considerable distance and at the intake the mix-

ture was not always complete, so that sometimes we got more Mississippi and sometimes more of the Missouri water. There were also seasonal changes which modified the character of the water. It had been shown that in the clarification process definite proportions of chemicals were used depending upon the character of the water, and it seems essential that it would require a competent corps of men to see that the process was properly carried out. It was due the community that such a corps be established.

The quality of the water is best shown by the typhoid fever statistics. No satisfactory method for the isolation of the typhoid bacillus has as yet been established. Vaughan of Ann Arbor has isolated from suspicious water bacilli of the venenosus group and by the use of biologic tests has been able to determine more definitely the character of the water.

In the bacterial purification of water, copper sulphate has been employed and its use in conjunction with iron sulphate process may be of some value. George T. Moore of Washington had undertaken to rid water of algæ and had found one part of copper sulphate to 100,000 parts of water sufficient to kill typhoid germs in from three to five hours in summer; in the cold this could not well be accomplished in less than twenty-four hours.

Dr. Albert Merrell was very glad to recognize the vast superiority of the method demonstrated in the proper clearing of water. As to the copper sulphate, that was not a new thing. He happened to know of one city where copper had been used for

the past eleven or twelve years in clearing the water. They used copper rods rotating in contact with each other while the water flowed over them and the results were claimed to be very beneficial. It was not known in the community that this method was used, however. The city of St. Louis was to be congratulated on the progress made in a comparatively short time, but it should not stop where it was. There were many points, the foulness of the reservoirs, for instance, that would have to be eliminated before it would be possible to have anything like a perfect condition. Nevertheless, it was a distinct advance and a matter for congratulation, and he thought it was justifiable to hope for still greater progress as time went on.

Dr. Robert M. Funkhouser said he had heard a statement made a number of times, and the statement had been made to him a few days before by a gentleman who dealt in fish, that he had recently lost 1,500 fish, and the question was whether it was a coincidence or whether the present water supply had anything to do with the death of these fish.

Dr. Grindon said he wanted to tell a fish story, too.

While the daily papers were telling about the fish dying all over the city he received a phone message from Dr. Higgins, living out in the county. He stated that in a pond in the country the carp had all died, although it was far removed from the water supply of St. Louis. Possibly there was an epidemic among fish.

Mr. Wixford, in closing, said this winter had been a very severe one and many of the lakes had frozen to the

bottom, and many so thoroughly that the fish did not receive any air, and when the thaw came the lakes were covered with dead fish. In regard to the action of free lime upon fish he had learned from Dr. Marsh, who came here from Washington, that he could not hatch his shad or brook trout in water that contained $\frac{1}{2}$ grain of lime to the gallon, but a $\frac{1}{4}$ of a grain had no effect upon them whatever. But there was no necessity for free lime in this process. It was possible to get nice clean water without that. The test for lime was a very simple one, merely a little silver nitrate added to the water would show the presence of free lime. As to the addition of copper sulphate with the iron sulphate, all the experiments had been upon reservoirs in which there were a great many algæ, and it took some time for this to be absorbed by the vegetable matter. To put the copper sulphate right in with the iron would not give it time enough. A separate solution of the copper sulphate might be added at the intake tower and then let it meet the iron, which would not materially influence the action of the copper sulphate, and follow with the lime at the *delivery* well. The system was not yet perfected for this treatment. The mud continued to accumulate in the basins. If enough copper sulphate was added there might be a mass of dead germs in the bottom of the basins. It would be better to have the present biologic process going on. It was not a good idea to have dead and decomposing matter in the bottom of the reservoir. Water containing few bacteria would be preferable to water made perfectly sterile and containing an antiseptic.

If the people wanted an antiseptic in their drinking water it were better to let them put it in for themselves. It was quite possible that the accumulation of a great amount of decomposing matter in the bottom of the basins might not cause trouble, but to try it on 600,000 people was a rather serious problem. After killing the bacteria there would be the decomposing mass to deal with, and it would be necessary to keep on dosing it to keep it dead all the time. In large lakes in which the mud accumulated, the bottom was simply a mass of germs, but it would not be advisable to kill all that. Talking about human sewage, when one had fish in water the excreta could be seen passing through the water, and if the biologic process going on there were stopped the water would soon be as foul as any other water. It would be an ugly thing to kill all the fish in the basin. There was no objection to live fish. It was the biologic process that did the work. If a broth filled with cholera germs were passed through a Pasteur filter, nobody would drink that broth for fear of the ptomaines that might be present. Or, if such a filter had patches of typhoid or cholera germs on it, no one would drink the water passing through it. Ptomaines were simple alkaloids like other alkaloids, and they had to be taken into consideration in connection with this subject. He did not believe any disease germs could live among the millions and billions of saprophytes that gather in the bottom of the basins or on the top of a filter, but he did believe there would be objection to introducing an antiseptic. The use of 1 part of copper sulphate to 100,000 parts of water would pretty

nearly treble the cost of the present method.

Mr. Wixford added that he wished

the members of the Society would visit the Waterworks and see what was really being given the city.

TUBO-ABDOMINAL PREGNANCY, ASSOCIATED WITH PAROVARIAN CYST AND MYOMATOUS UTERUS.*

By F. J. TAUSSIG, M. D., of St. Louis.

In many respects the following case of tubo-abdominal pregnancy, complicated with other conditions, presents unusual features.

Mrs. J. S., aged thirty-five years, colored, had been married seventeen years without having ever become pregnant. Her menstruation had always heretofore been regular—3 days in duration, but accompanied by severe pains. She came under my observation May 13, 1904. She had had an attack about ten years previously that the doctor called "womb trouble," characterized by pains in the back and lower abdomen, and a fever. She was sick for about a month at this time. The treatment consisted of rest and hot douches. Since this time she had had occasional bearing down sensations and backache.

The present trouble dated from January. Her menstruation occurred at the regular time—about the middle of the month—lasted three days and was accompanied by cramping pains. Toward the end of January and during February she suffered from nausea and vomiting, worse in the morning hours. Her periods in February were more profuse, prolonged and painful. Since then she had suffered off and on with severe cramping pains in the abdomen. No vertigo or fainting spells.

* Read before the St. Louis Medical Society, April 22, 1904.

In March there was again a menstrual bleeding, prolonged in duration (five days). In April, on the other hand, the bleeding was scanty, lasting only one entire day. For the past two months there had been a foul-smelling, at times blood-tinged discharge.

Lately there had also been considerable burning and pain on urination, but no increased frequency. Particular trouble had been caused by the persistent constipation. Purgatives gave only temporary relief and the pain and tenesmus on defecation was very severe.

On physical examination the patient appeared to be in fairly good general condition. Heart-sounds normal. Breasts showed no colostrum or other changes of pregnancy. Abdominally a rather firm, somewhat tender mass could be palpated, rising out of the pelvis and partly filling the hypogastric and right inguinal regions.

On vaginal examination there were no evidences of inflammatory lesions about the external genitals. Bimanually it was ascertained that the cervix lay high up, close to the symphysis, pointing downward. It was partly softened, not tender, and fixed in its position by masses posteriorly and to either side. The fundus could positively be distinguished from these masses by its connection with the

cervix and firmer consistency. It lay anterior, pushed two finger's breadth above the symphysis in the median line, adherent, not sensitive, apparently somewhat enlarged. Upon its anterior surface could be felt a small, hard nodule, the size of a hazelnut, which was taken to be a small fibroid.

Filling the entire cul-de-sac, pushing the uterus upward and bulging the vagina downward, almost to the introitus, could be felt a fluctuating tumor, immovable, not very tender, about the size of a child's head. This tumor could be separated from the uterus but could not be outlined clearly from masses lying higher up on either side. On the right side there was some tenderness. There was a blood-stained, stringy, rather profuse vaginal discharge. Temperature 98.4, pulse 80-90.

The diagnosis was made of tubal pregnancy with myomatous uterus, and the patient advised to undergo an operation.

On May 20th a laparotomy was performed at the Provident Hospital. On opening the abdomen a few old blood-clots were found clinging to the omentum, which was adherent to the pelvic mass. The ectopic gestation sac, together with uterus tubes and ovaries, was found to be imbedded in adhesions. The uterus lay anterior, the tubes apparently not directly involved to either side, and in the cul-de-sac lay the unruptured fetal sack with placenta adherent to its peritoneum. It was evidently impossible to lift out the sac without rupturing, so the intestines being protected by gauze the sac was ruptured, placenta and fetus extracted as

quickly as possible, and a large, firm gauze pack placed against the raw peritoneum, to which the placenta had been adherent. In this way the loss of blood was inconsiderable. The oozing ceased in a very short time. The quantity of amniotic fluid in the fetal sac appeared to be rather small. Its physical characteristics could not be distinguished owing to admixture with blood.

On the right side a parovarian cyst, the size of an orange, that had heretofore been beyond the reach of the palpating fingers, was now to be seen adherent to the base of the broad ligament. Both tubes and ovaries were imbedded in adhesions and the uterus was, as expected, studded with numerous myomata. In view of these circumstances, and the large raw surface left posteriorly, it was decided to do a panhysterectomy with free vaginal drainage. This was accomplished without further difficulty and the vesical peritoneum sewed to the rectal peritoneum at a point near the sacral promontory, in this way closing off the entire pelvis for purposes of drainage. The abdominal incision was closed in layers.

The patient made a good recovery, the highest temperature being 100 6-10°, just previous to the removal of the drains on the sixth day. She sat up in bed on the fourteenth day and was out of bed on the twentieth day. The abdominal incision healed by first intention.

During July and August, although the patient was in the best of physical condition, she developed a state of mental depression verging on melancholia. The thought that she had lost a child by the operation seemed

to weigh on her mind. Gradually, however, she got over this spell and when she left for the South, in September, she was in the best of spirits, and the pelvic examination at this time revealed no exudate or tenderness. There were a few symptoms of premature menopause, such as headaches, "hot flushes," etc., but none severe enough to cause her special inconvenience.

The specimen removed was preserved by the Kaiserling method. It shows the following peculiarities:

The 20 cm. long, well-preserved female fetus, is attached to the placenta by a long umbilical cord. Upon its head and back are blood-stained areas corresponding to the points at which it broke through the membranes and lay directly exposed to its fibrinous sac.

The placenta is unusually large and heavy, weighing but 40 grams less than the fetus. Its maternal side is convex and perfectly smooth. There are many old and fresh hemorrhages in the intervillous spaces. The fetal side is concave and irregularly nodular. The fetal membranes extend for some distance beyond the placental margin, but even allowing for the fact that a small portion of them may have been torn off, they are insufficient to have wholly inclosed the fetus.

Coming next to the uterus, we find that organ enlarged to a 12 cm. long, nodular body, whose cavity measures $10\frac{1}{2}$ cm. and is filled in its upper portion with fresh blood, whereas the cervical part is dilated by an older blood-clot. The uterine mucosa owing to the decidual changes has a yellowish-white color and is markedly

thickened. At some points it measures over 1 cm. It is somewhat irregular and very soft. The fibro-muscular coat is also greatly thickened and contains a large number of myomata, varying in size from an apple-seed to an acorn. The largest projects upon the center of the posterior wall. In the peritoneal coat there are also several smaller myomata, one of which proved, microscopically, to be a cystic adenomyoma. The surface of the uterine peritoneum is enlarged by the numerous points at which adhesions formed. Some of these going from the uterus to the left tube can still be seen.

The left tube and ovary are not much changed. There is some thickening of the tube and the ovary shows points of hemorrhage. Between the two could be seen a parovarian cyst, the size of a pea, which was removed for microscopic examination. There is also very beautifully demonstrated a cystic hydatid of Morgagni.

On the right side the tube is markedly thickened and somewhat tortuous. Its fimbriated extremity is flattened out to an area covering almost the palm of one's hand. At no points over this dilated fimbriated end can pieces of placental tissue be found. Immediately beneath the fimbria lies a parovarian cyst, the size of a small apple, and the right ovary lies beneath and perfectly independent of this cyst. It shows no special abnormalities. A corpus luteum could not positively be identified in either ovary.

In view of the fact that both tubes and ovaries were to all appearances free of direct connection with the gestation sac and that microscopically only decidual and no fetal elements

could be found in them, the question naturally arises: Was this not perhaps one of the rare cases of primary abdominal pregnancy? If we consider the fact that in this case the hypertrophic fimbria ovarica of the right tube lay closely approximated to, if not in direct contact with, the placenta the question should, I believe, be answered in the negative. In this connection it may not be amiss to quote from the most recent textbook on obstetrics (von Winckel's *Handbuch der Geburtshilfe*, Vol. 2, p. 771.)

"A further instance in the list of anatomical findings, that may simulate a primary peritoneal site of pregnancy is the recent discovery of pregnancy in the fimbriated end of the tube and particularly gestation of the fimbria ovarica. In gross anatomical relations we have here in fact the closest resemblance to the condition that must arise in the further development of an ovum implanted directly upon the peritoneum of the surrounding pelvic structures and only by careful consideration of the syntopie of placental site in relation to the adnexa and its histologic character can a differentiation take place. Thus it is very likely that a great many so-called primary abdominal pregnancies in reality take their point of origin from the ovarian fimbria." Possibly in further sections through the ovarian fimbria I may come across some fetal elements that will positively answer this question. Even should I fail in this, however, the anatomical relationships in the case were such that an assumption of primary abdominal gestation would hardly be justifiable. Particularly must we come to this conclusion since

the closer study of the cases thus far reported show that none of them will stand the light of closer criticism.

The microscopic examination which has not been wholly completed, developed a number of interesting problems in the formation of decidua to be reported on a later occasion.

From the history of the case and the pathological findings, the following sequence of events may be deduced: At a period not long after her marriage the patient developed inflammatory trouble of the adnexa which certainly to some extent interfered with conception. During seventeen years of married life she had never become pregnant. Finally in January, 1904, an impregnated ovum found a nidus upon the ovarian fimbria of the right tube. As it grew larger the blood supply over this area became insufficient and the chorionic villi sought to gain nourishment from the surrounding peritoneum of the cul-de-sac. As bladder and rectum became compressed by the growing mass, symptoms on the part of these organs developed and these it was, together with the unusual bloody discharge that made the patient seek medical assistance.

To summarize the points of special interest in the case, we have:

(1) Pregnancy developing from the fimbria ovarica along the peritoneum of the cul-de-sac.

(2) The presence of an intact uterine decidua of considerable proportions.

(3) The association of ectopic gestation with cystic degeneration of the remnants of the Wolffian ducts as in the two parovarian cysts and the cystic adenomyoma.

(4) The association with numerous fibromyomata of the uterus.

MIXED-CELL HYPERNEPHROMATOUS TUMOR OF THE KIDNEY,
ASSOCIATED WITH CALCULUS PYELONEPHRITIS.*

F. J. TAUSSIG, M.D., of St. Louis.

The history of the patient in whom the above unusual condition of the kidney developed was as follows:

Mrs. S. S., aged forty-two, first came under observation in November, 1902. She had had eight children and two miscarriages, the last conception having occurred two years previously. For the past eight or nine years she had suffered from pain and burning on urination and increased frequency, and for the past year she had observed that the urine was cloudy and contained "lumps." She said that at times she had seen a trace of blood, but had never had any prolonged hematuria. No history of the passage of a stone. She had had some fever with her last four childbirths, and occasionally suffered with backache, pain in lower abdomen and a leucorrhœal discharge. Last menstruation two months previous. The symptoms for which she sought relief had never wholly incapacitated her from work.

Examination at this time revealed sensitiveness over the base of the bladder. The kidneys were not tender or palpably enlarged. The uterus corresponded in size to a two months' gestation. The urine was slightly acid, was loaded with pus and epithelia and contained no blood or casts and 1-10 per cent. albumen. No tubercle bacilli found, but large numbers of other bacteria. Under frequent boric acid and silver nitrate (1-1000) irrigations the cystitis began to clear up. Only a small quantity

of pus was present two months later. Symptomatically she was also greatly improved.

As the time neared for her confinement the patient had on several occasions rigors and some fever. Finally, on June 17, 1903, I was called to her house, and found her suffering with pains in the right kidney region and a high fever, 105°, following upon a hard chill. Labor pains set in that night, and a full term child of eight pounds was born the next morning without any difficulty. On that day and the five succeeding ones her temperature ranged from 103° to 105°, pulse 110 to 120, fairly strong and regular. Antipyretics and cold sponging had but little influence. The urine from the commencement of this attack was again loaded with pus, and there was considerable vesical tenesmus. A temporary paresis of the bladder necessitated catheterization for five days. Delirium, and at times a semi-comatose condition, developed, so that her family gave her up for lost. At no time were there the slightest symptoms indicating infection of the uterus nor was the kidney at this time palpably enlarged, though it was somewhat tender. A diagnosis of right-sided pyelitis was made, the patient placed on a bland diet and given urotropin. The symptoms rapidly subsided after the first five days. The temperature remained normal, and in two weeks more the patient was able to be up again. Relieved from the weight and congestion of the pregnant uterus, the cystitis also began to clear

* Read before St. Louis Medical Society April 22, 1904.

up. Outside of semi-occasional pains in the region of the right kidney, the pyelitis gave rise to but little disturbance. Helmitol and urotropin were given interchangeably, and at times when the pus became more abundant a boric acid vesical irrigation was employed. In this way matters went on, the patient remaining in fairly good condition from July, 1903, until the fall of 1904. Occasionally there would be a rise of temperature to 101-102°, associated with pains in the right side and an increased pyuria. At no time was anything passed suggestive of a stone, nor was there at this time any hematuria.

Finally, on September 27, 1904, I was hurriedly summoned, and found the patient suffering excruciating colicky pains in the right side, so that I was compelled to give her opiates. Her temperature was 103°, pulse 110. The following day she had an even more severe attack. When I arrived I found that the patient had passed a stone about the size of a thumb-nail and an enormous quantity of pus and necrotic kidney material. I show in this bottle two of the largest of these masses. They were, when passed, approximately the size and shape of a small finger, and as the microscopic examination revealed, were composed of a mucoid material coated with pus and necrotic epithelial membranes. There were no evidences that the expulsion of this material had caused any further injury to the lower portion of the urinary tract. Some tenderness and thickening of the right ureter had been noted on several previous vaginal examinations. Now, this thickening was very marked. Abdominal palpation revealed for the

first time a mass in the region of the kidney the size of a child's head, semi-fluctuating and very tender on pressure.

The patient was removed to Mullanphy hospital, and as the temperature fell to normal and the mass of the swelling slightly decreased the operation was delayed for a week to get the patient in better general condition. On October 1, together with Dr. Crossen, I made a cystoscopic examination with ureteral catheterization. The left ureter was catheterized, but the orifice of the right one was seen to be plugged with a mucopurulent mass that interfered with the introduction of a ureteral catheter. From the left side was obtained 45 cu. cms. of a clear urine in which microscopically could be seen no pus, bacteria or casts. The freezing point of this urine was -1.12°C ., *i. e.*, within the range of a normal urine. An ordinary catheter was placed in the bladder to collect the urine from the other side if any should be passed. Through this was obtained 4 cu. cms. of fluid loaded with pus and epithelia. The total quantity of urine in twenty-four hours, measured on several occasions, varied between two and three pints.

On October 5 a lumbar incision was made on the right side. Owing to the size and nature of the kidney tumor it was found inadvisable to do a primary nephrectomy. An incision of two and one-half inches was made through the kidney substance to the pelvis and about a pint of foul-smelling pus washed out. Several minor pockets were also opened and a large gauze drain inserted after the kidney had been anchored to the skin. A portion of the kidney cortex removed for

microscopic examination revealed nothing that could not be explained on the basis of a simple pus infection. It was later recalled, however, that a few peculiar yellowish spots were observed in the kidney substance. The patient made a good recovery for a time, but toward December the quantity of pus discharging through the lumbar fistula began to increase again, together with a return of the pyuria. In consultation with Dr. H. Mc. Johnson the removal of the kidney was decided upon.

On January 7, therefore, I performed an intra-capsular enucleation of the kidney. The result was very satisfactory. In three weeks the large wound had almost wholly closed. At the present time the urine is free of pus and albumin, the bladder gives rise to no symptoms and the infiltration about the ureter is diminished. Cystoscopic examination in March showed an apparently normal bladder mucosa. The patient has gained twenty pounds in weight and feels well.

The specimen removed consisted of two pieces, which, together, approximated in size that of a normal kidney. Only a portion of the pelvis was removed, and its connection with the different calices could not be followed in every case owing to the extensive scar-tissue formation.

On section the kidney presented a variegated appearance, as the portion in this specimen jar, prepared by Kaiserling's method, will readily show. The epithelial lining of the pelvis and calices was infiltrated with blood, and at various points in the kidney there were larger or smaller hematmata. The yellowish areas proved on section to be hypernephromata. In some

places also you will notice translucent yellowish areas resembling in appearance fat. On microscopic examination this assumption was found to be correct. While it would take too long to consider on this occasion the various interesting phases in the microscopic study of this tumor, I can state that only a small amount of genuine kidney tissue was left, and this had undergone degenerative changes. Beside hypernephromatous and fatty tissue there were found unstriated muscle, fibres, new-formed fibrous tissue and lymph-nodules with typical follicles. A section showing some of this conglomeration of tissue is placed under the microscope. Although a large number of sections from various portions of the tumor have been studied microscopically, I am not yet prepared to give a detailed description of the nature of the pathologic changes involved.

To summarize the interesting features of the case we have:

1. A cystitis of long standing giving rise at the conclusion of pregnancy to an ascending pyelitis. Such cases of pyelitis in pregnancy are unusual, and involve many interesting points of treatment.

2. Development of a renal calculus which, at the time of its expulsion, caused the sloughing of a large portion of the lining of the kidney, pelvis and upper ureter. This material was expelled in the form of several ureteral casts the size of a finger.

3. Association of this condition with hypernephromata.

4. Presence of lymphatic, muscular, fibrous and fatty tissue within the kidney substance.

DISCUSSION.

Dr. Henry Jacobson, in discussing the last paper, thought that the doctor could have assisted his diagnosis by making a ureteral catheterization early. He should have tried the x-ray. In 98 per cent. of cases the x-ray was an accurate method of diagnosis. In very stout persons, or where there was a calcareous deposit in the walls of the veins near the kidney, it might lead to a mistake. Under chloroform he might have made out the presence of the tumor somewhat earlier, or he could have used phloridzin injected subcutaneously, and then, by examination of the separate urines, ascertained whether the suspected kidney was functioning properly. He supposed that the nature of the tumor was a mixed one, that it was a myomata-hypernephroma in combination with calculus pyelonephrosis, according to the microscopical examination.

Dr. N. B. Carson referred to a case of pyelonephrosis, in which he had failed to make the correct diagnosis before operation. The patient entered the hospital with a large abdominal tumor with a history of gonorrhœa of some months' standing, and his physician had been passing sounds. At his last visit to his physician a sound had been introduced, and following this there was a passage of blood. When he entered the hospital the tumor extended from the border of the ribs to the crest of the ilium and over the median line. Examination of the urine showed considerable pus, and it was thought there was a pyelonephritic infection extending

from below upward, from the gonorrhœal attack. Pressure upon the tumor did not increase the flow of urine. Examination with the fluoroscope or x-ray was not made. The question was whether it was a cystic hypernephrosis, a pyelonephrosis, an encysted tubercular peritonitis or a sarcoma of the omentum or intestine. A median incision was made and the tumor found on the inner side of the colon with very thin walls, and on making an incision there was a free discharge of pus and urine. It was decided that the kidney was the seat of the trouble. After breaking up the general adhesions there was removed a pyelonephritic kidney the size of an adult head. The cyst contained a gallon of fluid, and microscopic examination showed the kidney substance to be entirely destroyed. An interesting feature of the case was that just at the beginning of the ureter there was a hard tumor about the size of the thumb. The character of that tumor had not yet been decided.

Dr. Taussig, in closing, said that inasmuch as the patient was very stout an x-ray photograph would have been very difficult to obtain. The phloridzin test was thought of, but since it has value merely in comparing the healthy with the diseased kidney, and since practically no urine was obtained from the diseased kidney, it was not made. The diagnosis of a normal left kidney was based almost entirely on the absence of pus and bacteria from that side and the quantity of urine in twenty-four hours.

CONSTIPATION AND ITS RELATION TO DISEASES OF THE RECTUM.*

BY W. H. STAUFFER, M. D., of St. Louis.

My only excuse for presenting this subject this evening is to elicit your opinion based upon your experience in efforts to overcome a prevalent symptom often complicating both acute and chronic diseases.

The general practitioner as well as the specialist is frequently confronted with this condition, as every part of the body is influenced by defective elimination. I have no new method of treatment to suggest, as I am not a stockholder in any chemical company or trade journal.

The terms constipation, obstipation and fecal impaction are frequently confounded and a proper conception of the meaning of each is necessary in the outset of our discussion. By constipation is understood a condition of insufficient and tardy fecal passages due to functional conditions or diseases of the intestinal tract. Obstipation refers to those conditions in which there is a sufficient quantity of fecal material and adequate functional activity, but in which there exists some deformity, growth or contracture in the intestinal tract that causes mechanical obstruction to the passages.

By impaction is understood an accumulation of fecal material usually hard, dry, and stuck together in a mass, which is arrested at some point through an organic or spasmodic narrowing of the intestinal canal. The symptoms of the above-named condition so often overreach

one another that it is almost impossible to clearly separate them, but an intelligent use of each term implies a knowledge of the cause of the existing condition.

It must be borne in mind that what constitutes constipation in one person may not be so in another, for occasionally one does well with only one evacuation every second day, while a large majority require daily defecation in order to maintain perfect health.

Regularity without effort, and the discharge of fecal material proportionate to the amount of food consumed are the essential requisites of normal defecation. The impairment of either of these features in the line of inadequate amounts or prolonged retention requiring increased effort to obtain a passage, constitutes constipation. When these have been determined, a search for the cause should be instituted. Careful inquiry, abdominal palpation, and digital and instrumental examination are all necessary to come to a proper diagnosis in such cases.

In all common cases the symptoms accompanying constipation are debility and lassitude, while more or less mental depression is present in persons of nervous or hypochondrial temperament. When it occurs in the course of chronic insanity, it increases languor, moroseness and irritability of temper, and not infrequently excites acute and violent symptoms.

Not only do we have from constipation a poisoning of the system from

* Read before St. Louis Medical Society, April, 1904.

absorption of the liquid and gaseous contents of the bowels, the ptomains or poisons developed in them from fermentation producing depressing effects on the nervous system, with derangement of the stomach and assimilative organs, as shown in pale faces, debility, neuralgia and headache, but we get in addition, from accumulated forces in the rectum, uterine displacement, with its consequent disturbances in the pelvic circulation, and with its general reflex neuroses. Gynæcologists know well that the left ovary is more often diseased than the right one. The left ovarian vein has no valves, and a slight pressure upon it prevents its emptying. Doubtless the pressure of a loaded rectum in this event is a prolific cause of ovarian disease, especially on the left side.

To relieve this condition we must not rely on hot douches, iodine or glycerine applications, but relieve the engorgement of the ovarian veins by the emptying of the rectum.

Constipation may result from one or more of the following causes which are related to diet, and which need only to be mentioned to be appreciated: (1) Insufficient quantity of solid food; (2) too highly nutritious or concentrated food; (3) insufficient liquid; (4) astringent food and drinks; (5) indigestible food; (6) lack of digestive fluids; (7) irregularity in diet; (8) obstruction from overeating; (9) lack of peristalsis; (10) lack of exercise.

A very common cause of constipation is the failure to adopt and persistently maintain a regular time for daily defecation. Instead, many persons frequently resist a desire to evac-

uate at the regular time, from pressure of other engagements, and thus the nerves of the rectum become habituated to the contact of fæces and cease to renew the desire except at long intervals.

The power of the will must be made available, and due attention must be given to a function so essential, the proper performance of which is so necessary to health and comfort. In order to avoid the inducements to leave the closet too soon, the too frequently disgusting conditions of these should be remedied.

More attention than is usually given to places of public comfort is essential for reasons of decency and health, as well as for the avoidance of widespreading zymotic diseases. One has but to visit our large factories or department stores during the noon hour, where not infrequently one closet is supposed to accommodate from fifty to one hundred employes during the time granted for lunch, to be convinced that the work of our health department is not yet completed. It is to be devoutly hoped that the New St. Louis will be equipped with places of public comfort worthy to be compared with those of some of our eastern cities and all places of note in Europe. With the closing of the saloon on Sunday, the only places available to many, and especially to our street car men and coachmen, has been denied. The demoralizing and humiliating influence on one who is not accustomed to frequenting the saloon, to meet a pressing engagement, is worthy of our consideration. Decent, inodorous and ornamental toilet accommodations are better evidences of civili-

zation and refinement than statues and monuments so commonly used for decoration.

The act of defecation is ordinarily looked upon as a disagreeable nuisance, to be avoided when possible, and to be hurried through with or incompleting when necessity arises. No wonder a function which, normally, should be a real pleasure and productive of a sense of comfort and well-being, becomes an irregular, straining, pile-producing effort.

The rectum being filled with fecal matter produces a continued contraction and eventually a hypertrophy of the sphincter.

In such cases constitutional treatment will not correct constipation, but local treatment must be instituted to relieve said constipation.

You have but to recall the venous supply of the rectum to be convinced of the baneful effects of constipation on this part of our anatomy. The veins of the rectum return the blood through two entirely different channels. The internal or superior hæmorrhoidal veins collect the blood from the rectum proper and empty it through the mesenteric vein into the portal circulation. The middle and external hemorrhoidal, and the middle sacral veins collect the blood from the external surface of the rectum and empty it into the general circulation through the vena cavæ.

The treatment of constipation is by no means a simple proposition, and success will depend upon the intelligent study of each case. The medicinal treatment is exceedingly unsatisfactory. It often causes it and delays recovery by establishing the habit of response to an irritant. Drugs should

only be used as aids, and when all other methods have been exhausted. It is safe to say that the bulk of the drug trade centers about aperients, laxatives, cathartics and purgatives exploited by the commercial enterprise of proprietary medicine men, self prescribed by the laity or druggist, all for the relief of chronic constipation.

Much has been said as to the efficiency of various drugs employed in the form of enemata. Most of them act as local irritants, and as soon as the rectum becomes accustomed to them are of no more value than the ordinary injection of warm water.

Massage of various kinds and methods are of undoubted value, especially when there is atony of the muscular coat of the intestines with deficient peristaltic action and consequent disturbance of digestion. That benefit is more likely to follow here from repeated treatments than as an immediate effect would show that the nerve centers that preside over these functions have undergone a nutritive change which has taken time to produce, and hence that the improvement would most likely be lasting. Moreover, when the alimentary canal is distended by gas, or overburdened by solid contents, the nutrition of its walls must suffer from languid circulation, as any muscular organ would that was continually stretched and inactive. Massage improves the circulation and pushes along the contents of the stomach and intestines at the same time, besides directly stimulating the muscular fibers to contraction, and reacting on the nerve centers, thus improving function and organization in various ways.

For habitual constipation Doctor Sahlis, of Berne, advises his patients to roll a five-pound cannon ball upon the abdomen for five or ten minutes every morning before rising. In this way he has cured nearly all his cases of torpid bowels without medication. When universal peace comes, the orator can, therefore, speak not only of turning swords into ploughshares, but also cannon balls into aperients.

And peace will then have its victories no less renowned than war.

Much better than using cannon balls in obstinate cases of constipation is to instruct patients to percuss their own abdomen with the ulna borders of their own fists, in the direction of the ascending, transverse and descending colon for several minutes night and morning. Patients will stand an amount of pounding this way from themselves that they would not from any one else short of a suit for assault and battery, and the effect is often admirable where laxatives and other means have failed.

The baneful effects produced by constipation on the rectum are caused; 1st, by defective elimination; 2d, mechanical interference to the return circulation; 3d, prolonged and often ineffectual efforts at expulsion of feces; 4th, irritation from the use of drastic cathartics and infection from septic nozzles in administering enemas of various kinds.

Hæmorrhoids, fissures and fistulas, and catarrhal diseases of all kinds are not infrequently caused by chronic constipation.

The various local diseases of the rectum are as frequent as those of the nasal passages, and the only reason they are not treated is because

the proctologist is not as popular as the laryngologist.

Constipation is one of the prolific causes of the many painful affections of the rectum which can be relieved permanently if sought for and properly treated.

What is frequently a complication at first becomes a cause of very distressing symptoms, making life a burden rather than a pleasure.

DISCUSSION.

Dr. Robert Funkhouser thought it was evidently the intention of the doctor to call the attention of the profession in a general way to the conditions present in such cases and, as he had indicated, it was necessary that the physician familiarize himself with the conditions present in each individual case. The cannon ball suggestion reminded him of the story of one of his patients who had told him, the day before, that she had suffered for a long time from constipation, almost obstipation, and that her physician had advised her husband to get a ten-pound cannon ball and that she roll it about on the abdomen. The woman was pregnant, though the attending physician did not recognize it, and had she gotten that cannon ball and rolled it about on the abdomen she would certainly have killed the child, but the eminent neurologist who was her physician, though he was consulted day after day, saw that the abdomen was growing larger, and that the feet were swelling and that there were other symptoms showing kidney complications, yet continued to urge the cannon ball idea. This subject was such a vast one, that even though the patient might be willing to submit to

the physician or surgeon, the results were not always all that could be wished. One point of importance that Dr. Stauffer had mentioned was the necessity for these places of comfort in different parts of the city. If the medical men would emphasize that point with the Health Department it would be a very good idea. Putting off to a convenient season the emptying of the bowel was a habit that grew upon one, and should be avoided.

Dr. Joseph Grindon said that whether one was a dermatologist, a laryngologist, an ophthalmologist or an omphalologist, one was always interested in the subject. All were agreed that whereas there were a hundred drugs that would bring about a movement of the bowels, there was no drug nor combination of drugs that would cure habitual constipation. Yet it was in most cases, he believed, curable. One thing of importance in certain cases was the avoidance of a heavy breakfast. A heavy meal called upon the stomach at once to meet the needs of digestion, and thus diverted the attention of the nerve centres from the rectum. A method had been called to his attention a number of years ago that had given good results in certain cases. It was a method of administering enemata not mainly for the purpose of emptying the bowel, but rather to furnish to the lower bowel a system of gymnastics, and at the same time to furnish a sufficient quantity of fluid. The patient was instructed to inject at bedtime such a quantity of water at body temperature as could be retained until morning without discomfort. Patients sometimes said they could not retain it, or

would have to remain awake all night to do so, after the manner of the Irishman who, when asked by a friend why he looked so weary, said that the doctor had told him never to go to bed with cold feet, so that he had to sit up all night with his. But it would be found that at least an ounce or two of fluid could be retained at first and the amount could be gradually increased, until after a time the patient would be able to take and retain a quart or more at body temperature. After that the temperature could be gradually reduced until cold water was used. When the patient had reached the point where he could retain a quart of cold water, he was instructed to continue the practice for a month. In several cases of habitual constipation which had existed a number of years, this treatment had effected a cure. As to the cannon ball idea, it would seem quite possible in this way to force from the caecum into the appendix a small quantity of material that might cause an appendicitis.

Dr. Charles Shattinger said the cannon-ball could be recommended. Balls could be bought made of wood and hollow, and filled with shot up to any desired weight. There was no shortcut in the treatment of this condition, neither by ball-massage, the manner of giving an enema, or by special directions as to the time when defecation should take place. Faradism of the abdominal walls or rectum and, in severe cases, a spiral electrode passing up through a colon tube into the bowel, was effective treatment. When local causes existed in the rectum they would have to be attended to, but the rectum was not the

cause in the majority of cases, but the reverse, constipation causing rectal diseases. One of the causes was the prevalent habit of eating food not presenting enough residual bulk. We were so used to food masticated, as it were, by machinery, that bulk had to be supplied in some manner by bringing in foods containing cellulose, hence the fad of chewing grains of wheat or eating bran. The next most prolific general cause was weakness of the abdominal muscles; 50 per cent. of all women suffered from splanchnoptosis in some one of its varieties, caused or at least kept up by weak abdominal muscles. Exercises should be chosen, especially calling into action the abdominal muscles. The result would be first of all strengthening the muscles involved in the act of defecation and, second, improvement in the abdominal circulation.

Dr. L. S. Luton said the Civic Im-

provement league had at one time gone over this matter thoroughly and the corner of Grand and Franklin avenues had been considered for the erection of such a place.

Dr. Stauffer, in closing, said, in reference to large enemas, he thought that a Mr. Hall, in New York, had originated the idea some twenty years ago. Dr. Stauffer had a patient who had adopted the method and had never had a natural movement of the bowels since. The difficulty was in stopping the enemas; the patient must keep using more and more water or the bowel would fail to respond. Unless after the bowels moved, there was some other injection in the way of a lubricant it left a dry, burning sensation, frequently resulting in a catarrhal condition. He was heartily in accord with Dr. Kieffer and Dr. Moore on the advantage to be derived from eating a large breakfast.

— JOURNAL —

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EDITORIAL.

SALUTATORY.

With this number, the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION closes its first year. Twelve numbers with an average of sixty reading pages. Not only has the journal published the transactions of the association, but also papers, or abstracts of papers, from men best

known in the medical world. One hundred and fifty-four reports of meetings of affiliated societies and two hundred and sixteen news items, thirty-seven editorials and sixty-eight original articles have appeared. Special thanks are due Drs. C. Lester Hall, F. J. Lutz, Woodson Moss, M. P. Overholser, Robt. T. Sloan and L. A.

Todd of the publication committee, also to my assistant, Dr. Chas. D. Cobb, and the assistant secretary, Dr. E. J. Goodwin, for their valuable assistance. Not only has the journal given all members an opportunity of knowing just what was done at the annual meeting and kept the doctors in different parts of the state in touch with each other, but it has furnished those medical men who never attend a *quid pro quo* for their annual contribution.

THE STATE ASSOCIATION.

The annual meeting of the State Medical Association was held at Excelsior Springs, May 16, 17, 18, 1905. In the history of the association there has been no meeting where the members were so enthusiastic. The idea of devoting the first day to the meeting of the legislative bodies met with general approval. The scientific program was unusually attractive and the attendance unprecedented in medical conventions in Missouri. That the presidency should fall to the country was generally conceded and the election of Dr. D. C. Gore, of Saline County, was unanimous. Drs. C. D. Avery, Lincoln County; J. P. Burke, Moniteau County; F. A. Glasgow, St. Louis; T. F. Lockwood, Bates County; E. Lowry, Clay County, were elected vice-presidents. Dr. C. M. Nicholson, of St. Louis, was elected secretary, and Dr. J. F. Welch, of Salisbury, treasurer. The association will meet next year at Jefferson City and the scientific work will be divided into sections. Dr. W. G. Moore, of St. Louis, was elected orator in medicine, and Dr. C. H.

Wallace, of St. Joseph, orator in surgery.

The house of delegates passed a motion introduced by the secretary providing that each society should be invited not later than October 1, 1905, to appoint members to present papers at the annual meeting.

Three new councillor districts were added and Drs. Tefft, of Springfield, Shuttee, of West Plains, and Porterfield, of Cape Girardeau, were elected to preside over these.

If the Excelsior Springs meeting can be considered as a criterion the work of reorganization in Missouri has proved a great success.

JULY NUMBER.

In the next issue of the journal will appear the minutes of the annual meeting, reports of officers and a complete roster of the members of the State Association.

Lists of members of the different county societies have already been sent to the respective secretaries for correction. Any member who has not paid his annual contribution and desires to reinstate himself in his local society, as well as the State Association, should forward dues to the secretary of his county society without delay.

STATE ANATOMICAL BOARD.

The annual meeting of the State Anatomical Board was held May 17th at the Music Hall, Excelsior Springs.

Election of officers resulted as follows:

President—Dr. C. M. Nicholson, St. Louis.

Vice-President—Dr. Wm. Frick,
Kansas City.

Secretary—Dr. C. M. Jackson, Col-
umbia.

Treasurer—Dr. A. R. Kieffer, St.
Louis.

The next meeting will be held at
Jefferson City.

NEWS ITEMS.

Adrenalin Gauze.—The remarkable capillary contracting action of adrenalin has been utilized by a firm of antiseptic dressing manufacturers in Chemnitz, who are introducing surgical bandages impregnated with the substance, the whole being sterilized.

Roentgen has never been interviewed, has never been banqueted, and has refused immense sums of money for a book on what he styled "a new kind of ray"—in short, he is one of the least self-advertised of scientific authorities. The medical profession's reputation would be better had all his followers followed his example in this respect.

During the past ten years the number of students at the medical department of Columbia University, New York, has decreased from 779 to 560. The cause is the raising of the standard and the tuition fees. May the good work extend to all other medical departments and medical schools. All will be benefited by such treatment of medical education.

Ichthyol is a most valuable substance to reduce inflammatory swelling and in septic conditions affecting the skin. Its disagreeable odor is very

distressing to many patients, but it can be concealed by the addition of oil of citronella, minims xx to the ounce of ointment. Oil of roses also does well, but is very expensive.

The Supreme court of Ohio, in a recent decision, holds that Christian Science healers cannot practice in the state without a license. The court stated:

"The giving of Christian Science treatment for a fee, for the cure of disease, is practicing medicine within the meaning of the statutes regulating such practice in this state. The statute making it a misdemeanor to give such treatment for a fee is not interference with the rights of conscience and of worship, and is not on that ground unconstitutional. Legislation prohibiting any one from treating a disease for a fee, excepting such persons as exercise the police power of the state, is constitutional."

In the fractures of young children do not look too much for crepitus. These fractures are apt to be on the line of union with an epiphyseal cartilage, and no crepitus can be evolved without the use of an unjustifiable amount of force.

COUNTY SOCIETY NOTES.

ST. LOUIS MEDICAL SOCIETY.

Dr. F. L. Henderson, President.

Dr. T. A. Hopkins, Secretary.

The St. Louis Medical Society has convened in regular session four times since April 21, 1905. The following reports, scientific papers and demonstrations have been presented:

At the meeting held April 22d, Dr. F. J. Taussig presented a "Report of Two Complicated Cases." The first was a case of "Tubo-Abdominal pregnancy, Associated with a Parovarian Cyst and Myomatous Uterus." The patient was a female, married seventeen years and had never given birth to a child. A diagnosis of extra-uterine pregnancy was made and at a suitable time, laparotomy was performed. A large mass extending from the cul-de-sac upward was found and examination of the mass proved it to be a sac containing a foetus extending into the cul-de-sac. The placenta was attached to the peritoneum and was not directly associated with the uterus. One ovary was associated with a cyst and the uterus was irregular and somewhat enlarged. The case presented features which "lead one to question if it was not one of the rare cases of primary abdominal pregnancy. The second case was one of mixed-cell hypernephromatous tumor, following on a calculous pyelonephritis." The patient had given birth to eight children and had experienced two miscarriages. On nearing her next confinement she began to have chills, fever and pains over region of the left kidney. She passed a urinary concretion covered

with pus and necrotic material and the urine contained a great deal of the same material; an operation was made and the kidney removed. It was increased in size and a large tumor mass was found at the upper border and merging into the kidney substance. The patient gave a history of a chronic cystitis and ascending pyelitis and the operation revealed the results on the kidney. Microscopic examination of the mass revealed a mixed cell tumor, considerable muscular tissue being present. Discussions by Dr. Jacobson and Dr. Carson, "who also reported a case of similar nature in his practice, only that a tumor size of thumb was found at the beginning of the ureter and the ureter was occluded at the site of the tumor."

At the meeting held April 29th, Dr. W. A. Stauffer presented a paper on "Constipation and Its Relation to Diseases of the Rectum." The paper treated of the practical methods of relieving long-standing cases of constipation, and the harmful effects resulting from lack of proper attention to free and regular evacuations of the bowels. He suggested the use of systematic exercise and massage to strengthen the abdominal muscles, regular diet, and especially a good breakfast and a regular time for going to stool, a time soon after the morning meal being preferable on account of the peristalsis which is set up in the full lower bowel, after digestion begins. The paper emphasized the fact that we should have convenient places, especially in the

down-town districts, for arranging the toilet, this being the more demanded on account of the recent Sunday closing order, and from the fact that every large and intelligent community should be provided with the proper conveniences leading to physical comfort and cleanliness.

The paper was discussed by many of the members, and it was deemed important and advisable that the society investigate the present conditions and see how much has been done and can be done in this direction. The matter was referred to the committee on public health and legislation.

At the meeting held May 6th, action was taken on the death of Dr. Robert Maurice King. Resolutions of condolence and sympathy were prepared and ordered presented to the family of the deceased, and tributes to his character and standing were made by many of the members, among them being Drs. Funkhouser, Ravold, Moore, Ball and Shutt, and Judge O'Neill Ryan. Judge Ryan had met and known Dr. King for many years, and he was an expert witness in Judge Ryan's court in many cases. Judge Ryan said, in part, that Dr. King was one of the few men whom he knew that held unbiased and intelligent opinions of technical medical points, and was always able to express himself in clear and intelligible terms. Dr. King graduated in medicine at the Jefferson Medical College in 1867, and had continued in medical pursuits up till the time of his death. He was an ardent supporter of any movement tending to increase the dignity, honor and knowledge of medicine. He was a teacher in the Beaumont and Physi-

cians and Surgeons Medical Colleges for the past twenty-five years, the last ten years being devoted to obstetrics. He was one of the organizers of the Beaumont and Physicians and Surgeons Medical Colleges.

He was a man of high professional standing, and his integrity, honor and ability were unquestionable. He was always ready to stand for the right as his conscience told him; was an unfailing friend, and was ever giving encouragement and help to the young members of the profession. He filled numerous positions of honor and trust in civil and professional life, and was treasurer of the society for the past year and a half, having acquired an enviable reputation as a shrewd collector and financier. His books and accounts were found in perfect condition by the auditing committee of the society.

At the next regular meeting Dr. C. J. Orr was unanimously elected to the position of treasurer, left vacant by the death of Dr. King.

At the meeting of May 13th Dr. Homan, chairman of the committee for banqueting and entertaining the medical members of the General State Assembly, reported. The banquet was held at the Hotel Jefferson, May 10th. The society was well represented, and the function was a success in every particular.

Dr. Amand Ravold demonstrated a specimen of chylous urine. Examination of the patient's urine and blood did not reveal the "*Filoria Sanguinis Hominis*," and the condition was transitory, lasting only three or four days. The urine was distinctly cloudy, and cleared up on addition of small amounts of ether,

fat globules then appearing on the surface of the urine. A small amount of albumen and a few hyaline casts were present. The patient had gallstones, and was operated for the same. The chylous condition of the urine disappeared before the operation was attempted. This condition (chyle in the urine) is considered a rarity, and evidently in this case was due to a blockage of the thoracic duct, as no fat globules were found in the blood.

The following new members have been elected: Drs. E. H. Higbee, M. J. Lippe, J. F. Shoemaker, Edwin H. Eyerman, C. H. Zoller, Maurice E. Breed, Robt. F. Lischer, L. H. Brandenburger, A. P. Henke and H. E. Miller.

C. H. SHUTT, Reporter.

SOUTHEAST MISSOURI MEDICAL ASSOCIATION.

The twenty-ninth annual meeting of the Southeast Missouri Medical Association convened at Charleston, Missouri, May 2-4, 1905. The attendance was the largest in the history of the association, forty members being present. The following officers were elected for the ensuing year: President, T. W. Cotton; vice-president, J. D. Porterfield; corresponding secretary, T. C. Allen; recording secretary, C. R. Fleming; treasurer, W. E. Goodykoontz. The next semi-annual meeting will be held in October at Farmington. Dr. J. L. Eaton, of Bismarck, was endorsed by the association for appointment on the commission to locate the new tuberculosis sanitarium. Dr. Cotton, the newly elected president, is in Europe, but sent an excellent pa-

per to be read before the association. The scientific program was an exceptionally good one. The association was royally entertained by the citizens and physicians of Charleston and the Mississippi County Medical Society.

T. C. ALLEN,

Corresponding Secretary.

THE McDOWELL DISTRICT MEDICAL SOCIETY.

(GASCONADE-MARIES-OSAGE COUNTY MEDICAL SOCIETY).

The McDowell District Medical Society was called to order by the chairman, Dr. J. D. Seba. Reading of the minutes of the previous meeting was dispensed with. Dr. J. D. Seba then delivered the annual address. Dr. J. J. Ferrell presented a tubercular clinic, which was discussed by all present. The society then adjourned for supper. Immediately upon reconvening Dr. J. J. Ferrell reported a case of "Dyspepsia," which was discussed by Drs. W. R. Ferrell, J. D. Seba, M. E. Spurgeon, W. S. Allee and J. W. Nieweg. The secretary-treasurer made report, which was accepted. It was then moved and carried to discontinue the McDowell District Medical Society. Immediately after discontinuing the McDowell District Medical Society it was moved and carried to organize a Gasconade-Maries-Osage County Medical Society. Dr. J. D. Seba was made temporary chairman, and Dr. J. W. Nieweg temporary secretary. Moved and carried to hold semi-annual meetings, the fourth Thursdays in April and October. Moved and carried that the annual dues be \$3.00, payable at the October meeting. It was then

moved and carried that the constitution of the Missouri State Medical Association be adopted as amended. The election of officers for the ensuing year resulted as follows: President, J. J. Ferrell; vice-president, W. S. Ferrell; secretary-treasurer, J. W. Nieweg; delegate, J. D. Seba; censors, J. D. Seba, M. E. Spurgeon. By unanimous vote, Dr. W. S. Allee was made an honorary member.

J. W. NIEWEG, Reporter.

BUTLER COUNTY MEDICAL SOCIETY.

Dr. W. A. Kendall, President.

Dr. J. J. Norwine, Secretary.

The Butler County Medical Society held its regular meeting in its room in the City Hall building, Dr. Kendall presiding. Those present were Drs. Kendall, Eskew, Wright, Taylor, Seybold and Norwine. The subject of discussion, "Illegal Practice," was taken up, and the following ruling adopted: That any member of this society knowing of any illegal practice being done in this county must make affidavit in writing, giving the names of the parties and their residence. This report shall be made at the meeting of this society, and without discussion. It will be referred to the committee on public health and legislation.

J. J. NORWINE, Reporter.

BARTON COUNTY MEDICAL SOCIETY.

Dr. G. D. Allee, President.

Dr. J. L. McComb, Secretary.

The Barton County Medical Society held its regular meeting May 4th, Dr. G. D. Allee presiding. After the

reading and approval of the minutes of the preceding meeting, Drs. Gise and McKelvey were elected to membership. Dr. T. H. Duckett was elected delegate, and Dr. M. G. Roberts alternate to the State Medical Association. There being no prepared program the society then discussed the best methods of securing the membership and attendance of the physicians of the county. It was finally decided to have a banquet on the evening of our next regular meeting. Drs. Griffin, Roberts, and Van Meter were appointed a committee to make arrangements for the occasion. Dr. T. A. Duckett was appointed reporter. The society adjourned to meet in Lamar, August 3, 1905. T. H. DUCKETT, Reporter.

BENTON COUNTY MEDICAL SOCIETY.

At a meeting of the medical profession of Benton county at Warsaw, Missouri, the following officers and members were elected: President, G. A. Greeson; secretary, S. O. Davis, treasurer, J. R. Smith. Delegate to attend the State Medical Association at Excelsior Springs, S. O. Davis.

The following members were elected: Drs. G. A. Greeson, R. F. D. No. 1, Lincoln; G. W. Woods, Fairfield; E. L. Rhodes, Lincoln; M. Dick, Cole Camp; J. W. Clark, Frisette; W. G. Jones, Lincoln; N. A. Schwald, Cole Camp; E. E. Holtzen, Cole Camp; J. R. Smith, Warsaw; E. F. Haynes, Warsaw; S. O. Davis, Warsaw. Time and place of meeting have not yet been decided upon.

The members who have joined the organization will make it their special effort to get the remainder of the

members of the profession to join the society and make it a profitable organization both to the profession and the community.

LACLEDE COUNTY MEDICAL SOCIETY.

Dr. J. M. Billings, President.

Dr. J. A. McComb, Secretary.

The Laclede County Medical Society met at the Laclede Hotel, Lebanon, Missouri, on Monday, May 1st, with Dr. J. M. Billings, president, in the chair. There were present twelve physicians. This society was organized April, 1903, and has met semi-annually. At this meeting it felt strong enough to order meetings quarterly and elect two vice-presidents. A committee of three was appointed to investigate, secure evidence and report any illegal practice of medicine in Laclede county.

The following officers were elected for the ensuing year: President, Dr. J. M. Billings; vice-presidents, Dr. C. E. Carlton and Dr. Robt. Richey; secretary and treasurer, Dr. J. A. McComb.

Dr. J. A. McComb read a short paper on "Early Diagnosis of Chronic Phthisis Pulmonalis."

Dr. J. M. Smith, of Orla, presented a case of tuberculosis of the lung.

The paper and patient were the beginning of a very interesting discussion on this extremely important subject. It brought out the fact that we have much to learn of the early symptoms and pathology of consumption. Also that gross carelessness on the part of many physicians, woeful ignorance of some and unwarranted optimism of others, prevent getting the best results obtainable.

We were so well pleased with the subject and so little satisfied with the short time given it, that it was decided to continue the discussion at the meeting in July and further to consider the early treatment.

Dr. Jno. Jacobs, of Conway, was appointed to read the paper and all who could do so were requested to present patients.

By common consent we have adopted the plan of selecting at one meeting the subject to be studied at the next so we may be prepared to consider it more intelligently.

J. A. McComb, Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. Robert T. Sloan, President.

Dr. Max C. Goldman, Secretary.

The following is the corrected paragraph referred to in my criticism of the published report of the meeting of March 9th:

"Two interesting cases of 'hydro-nephrosis' were reported by Dr. Howard Hill; in one, nephrectomy was performed, the renal substance having degenerated almost entirely and being enclosed, together with a large amount of fluid, in a dense fibrous capsule; in the other case the operation consisted of incision and drainage; it was found that some of the renal substance remained, and since the ureter was not obstructed by either a twist or stone, as Dr. Hill demonstrated by irrigation with methylene blue solution, the procedure indicated was elevation of the kidney structure and careful drainage. At the time this case was reported, there were encouraging prospects of restoration of some

of the renal function and closure of the fistulous tract."

The discussion was opened by Dr. A. E. Hertzler; Drs. C. M. Fulton and O. H. Dove also taking part.

MEETING OF APRIL 27, 1905.

The president, Dr. Robert T. Sloan, in the chair.

The cases of Pott's disease which Dr. M. M. Edmonson had consented to again present before the society were inspected by the members present, after which Dr. Katherine B. Richardson commented upon the remarkable improvement in the case of spondylitis involving the cervical region, stating that whereas before the child entered the hospital it was compelled to support the head with the hands, standing or walking being extremely painful, at present with the jury-mast and plaster-jacket applied, she plays with the other children and is improving wonderfully in every way. The doctor called attention to the well pronounced retraction of the chin in the case referred to, an unfortunate effect of the jury-mast.

A symposium on "Acute Articular Rheumatism," followed the presentation of the above cases. Dr. L. G. Taylor read the paper on "Etiology and Pathology;" Dr. Abram Miller considered the "Diagnosis and Prognosis;" Dr. Franklin E. Murphy presented some interesting statistics on the "Complications," especially the valvular heart lesions, and Dr. B. H. Zwart reviewed the "Treatment."

Many questions of importance were suggested in the consideration of this subject; those of greatest interest were: (1) the infectious character of the disease; (2) the pathology of the

particular lesion, rare opportunity being afforded for pathologic study in the acute stages; (3) the role of the tonsils as avenues for the entrance of the infectious agent; (4) the relation of various conditions such as age, sex, seasons of the year and occupation to the occurrence of the disease and to the appearance of complications; (5) the relation of this disease to chorea, and (6) the liability to complications affecting the serous membranes.

The discussion was opened by Dr. E. W. Schauffler; he laid stress upon the differential diagnosis between murmurs of heart lesions and of anemia, and stated that as a rule there should be no great difficulty in this. As to treatment, he recommended the use of salicylic acid derived from the oil of wintergreen, in as large doses as can be tolerated by the stomach.

The following also took part in the discussion: Drs. E. von Quast, Chas. H. Lester, N. P. Wood, C. B. Hardin, S. G. Burnett, F. L. Cook, J. W. Kyger and W. E. Montgomery.

MEETING OF MAY 11, 1905.

The President, Dr. R. T. Sloan, in the chair.

The professional program consisted of two very interesting papers: One by Dr. J. W. Kyger on the subject, "Septic Infection in the Newly Born," the other by Dr. William J. Frick on "The Treatment of Neglected Club-foot."

Dr. Kyger considered only a few of the infections of early infancy, such as those arising from the invasion of the umbilical wound by the staphylococcus pyogenes, the streptococcus of erysipelas, and the bacillus of tetanus, vulvo-vaginitis, and other go-

nococcus infections, particularly ophthalmia. The treatment of most of the infections is chiefly prophylactic, and in all forms of gonococcus infections, isolation was recommended.

Dr. A. E. Hertzler opened the discussion. He referred to the frequent association of icterus with the infections occurring in early infancy, and stated that one must be careful in differentiating between the so-called idiopathic icterus and that due to general septic conditions.

Dr. Jos. Lichtenberg spoke of ophthalmia neonatorum, and laid stress upon the statement that all ophthalmias of the newly born are of gonorrheal origin. He outlined a simple but very efficacious treatment for this affection.

Dr. J. W. Kyger closed the discussion.

The paper read by Dr. William J. Frick on "The Treatment of Neglected Clubfoot," was one of unusual value; a feature of great interest was the success which the essayist has had with the manipulative method of treatment in cases of extreme deformity. He said the proper time to operate is when the child has learned to walk, so that after correction of the deformity the child helps by walking upon the corrected foot. The method recommended very highly is that of manipulation; each deformity should be worked out separately, using gentle force in the beginning, but gradually increasing it. He stated further, that while it becomes necessary in some cases of deformities to operate upon the bones or soft parts, yet he would always choose the least mutilating procedure. The best results

however, he obtains from the manipulative method.

Braces are necessary to maintain the original correction and thus prevent return, and the best fixation apparatus is the starch bandage, reinforced by strips of zinc. But, used alone, mechanical appliances are never effectual. In using a brace, one should never immobilize too much. The essayist concluded with the remark, "The treatment of clubfoot by the brace is a mistreatment by the brace."

The paper elicited considerable discussion. Dr. J. D. Griffith referred briefly to the pathology of the clubfoot deformities, describing the changes in the various structures, such as bones, muscles, tendons, and ligaments occurring in the more common varieties. He indorsed the manipulative treatment, but emphasized the importance of the retention of the correction, and the observation of the cases for several years before dismissing the patients as cured. He spoke also of the frequent necessity of lengthening the fasciæ and tendons in cases of long standing deformity before correction can be effected. He recommended the starch bandage dressing over zinc strips, as described by Dr. Frick in his paper.

The following also took part in the discussion: Drs. J. F. Binnie, A. L. Fulton, E. F. Robinson, M. M. Edmonson, H. E. Pearse and A. E. Hertzler.

Dr. Frick closed the discussion.

Additional members: Michael J. Owens, Kansas City and Richard H. Lee, Kansas City.

MAX GOLDMAN, Secretary.

RALLS COUNTY MEDICAL SOCIETY.

Dr. O. B. Hicklin, President.

Dr. T. J. Downing, Secretary.

The Ralls County Medical Society held its regular meeting in New London, April 13, 1905, Dr. W. S. Harwood in the chair. The minutes of the previous meeting were read and approved, after which Dr. Thos.

Monroe, of Center, was elected a member of the society. The next meeting will be held on July 13th, at Spalding Springs, when every Ralls county doctor and his family will be present for a day's outing. Physicians of adjoining counties are invited. An interesting program is being prepared.

T. J. DOWNING, Reporter.

ABSTRACTS.

An Accidental Rephrectomy.—E. W. Hedges of Plainfield, N. J., reports an interesting case illustrating the difficulties often met with in attempted diagnosis of abdominal surgical cases. The patient, a woman of thirty-nine years, had had excellent health up to eight years previous to her coming under the observation of Dr. Hedges. At that time she was taken with sudden pain in the right iliac fossa, with vomiting, tenderness on pressure, intense pain on every movement of the body, followed by chills, fever and a period of illness which confined her to bed for eight weeks, during nearly the entire period there being tenderness on pressure over McBurney's point. Ever since that original attack she has been tender in that region, has been unable to do hard work, often being obliged to lie down for hours after unusual exertion. Otherwise her general health has been good.

Four days before Dr. Hedges saw her she was taken with sharp pains in the right inguinal region, forcing her to lie down for half a day. Next day the pains returned with increas-

ing severity, accompanied with vomiting. The tenderness increased and on the the third day she had a chill, followed by fever; temperature 101, pulse 110, small and thready; expression drawn and anxious. The right rectus was rigid, the slightest movement gave pain, and the region of McBurney's point was exceedingly tender. While preparing for operation the pulse went to 124 and the temperature to 102.

Upon opening the abdomen through the right rectus a hard mass was felt at the bottom of the incision. The incision was enlarged downward and the mass was found adherent to the parietal peritoneum and the omentum, receiving the bulk of its blood supply from the latter structure. This strip of omentum was ligated and removed, the abdominal cavity walled off and the mass, which was hard and globular, about three times the size of a golf ball, was enucleated. It was found to be a much atrophied kidney about two and a half inches long, two and a quarter inches wide and two inches thick. There was no bleeding from the place where the kidney had

been—the mass having received its entire blood supply from the omentum. An examination revealed the left kidney in place, but no right kidney. The patient left the hospital on the thirty-third day following the operation feeling perfectly well, with no pains and able to walk about freely.

The kidney was found to be hard on section; an ivory-like white stone, cylindrical shaped, an inch and a half long by about an inch in diameter, completely filled the kidney pelvis and forced its way into the kidney substance. Mere traces of the renal artery, vein, and ureter were found. They were atrophied almost beyond recognition and evidently had not functioned for years. The capsule was studded with large veins, evidently anastomosing with the larger veins of the omentum. Doubtless the kidney had been nourished vicariously through the omentum circulation.

“The moral of this tale,” says Dr. Hedges, “is that an operator is likely to stumble on the unexpected in doing abnormal work, and that an appendical attack is simulated by many other conditions, even by an inflammation around a prolapsed and atrophied kidney.”

Physical Means as Aid to Practice.

—The idea that adjuncts to the aid of the physician, such as electricity, massage, hydrotherapy, etc., are specialties, and should be confined to those who limit their time exclusively to this class of work, is an erroneous one.

No great amount of technical knowledge is required, and a little attention and study of these subjects will soon

qualify one to treat patients intelligently.

We are prone to rely too much on medicine alone, forgetting these aids that we should call to our assistance, and leave to irregular practitioners and quacks the use of these methods. It is, perhaps, because it is the method of the quack and irregular, that so many look askance at anything except old established lines of treatment with drugs.

It is unquestioned that osteopaths, for instance, relieve and cure a great many ailments. And why? Because their method is chiefly an elaborated system of massage.

Now, whatever is good in it is taken from the idea of massage, which ought to be at the command of every physician. If this were done such fads would soon lose their distinctive names, and become part of the armamentarium of every well informed physician.

At Panama as well as in Cuba there are more than rumors of bad conditions on the Isthmus, and the reported presence of yellow fever in several localities, with the death of one naval surgeon, would seem to indicate the urgent need of some change in spite of what the commission may say in reply to Dr. Reed, particularly in view of what these same sanitarians were able to accomplish in Cuba. There is also no doubt that if they had been hampered in Havana as in Panama, the discovery of the method of the transmission of yellow fever would not have been made. This priceless advance in hygiene touches every American, and it is therefore of national and international importance

to call attention to what can be accomplished by unhampered sanitary work. It is certainly gratifying that in municipal hygiene there is a growing tendency of the people to insist that their sanitary experts shall be supported and not hampered by the administration. The gradual awakening of the people to these facts is naturally leading to the establishment of wealthy philanthropists of vast institutions for the study of improved methods of prevention. The restriction placed upon the sanitarians of the Isthmus is, therefore, the more remarkable. The people, particularly those who lost their sons, are still thinking of the preventable camp diseases of a few years back, and want to know why the experts did not prevent them; and they will soon want to know why prevention cannot be carried out in Panama as was done in Cuba. There is, therefore, the more reason for astonishment at Dr. Reed's revelations. We must send there our most intelligent engineers, and the nation's welfare demands that they receive every protection the most advanced sanitation can give them.

A Floating Sanitarium.—The steamship *Fuerst Bismarck*, launched on March 22d, at Glasgow, has the distinction of being the first ocean liner designed especially as a floating sanitarium. She is a twin screw of 8,600 tons, and is built for the Hamburg-American line. She will start on her first cruise on July 6th, covering 3,773 miles, stopping for a time at Guernsey, Bantry Bay, Stornoway, Leith, the Shetlands, Trondhjem and Bergen. Dr. Schweninger, who was physician to Prince Bismarck, will per-

sonally supervise the cruises. He will be assisted by a corps of physicians who will care for the health seekers free of charge. The cruises will be chiefly for convalescents and those in need of rest and recreation. The ship will have a gymnasium, electric baths, massage rooms, and all other equipments of a stationary sanitarium.—*New York Medical Journal*.

The commission appointed in New York to study cerebrospinal meningitis has held a consultation, and an appropriation of \$5,000 has been made for the use of the commission, to be increased if necessary. There is much concern over the epidemic. During the month there has been an average of five deaths a day from the disease. The average for the past few years has not been more than two a week. No less than 386 deaths have occurred, mostly on the East Side, from the disease since January 1st. The personnel of the commission is as follows: William M. Polk, chairman, dean of Cornell Medical College; Walter B. James, professor in the College of Physicians and Surgeons; William P. Northrup, professor in Children's Diseases in Bellevue Hospital and at New York University; Simon Flexner, head of the Rockefeller Institute; Joshua M. Van Cott, Pathologist at the Long Island College; E. K. Dunham, Pathologist of Carnegie Laboratory, and William K. Draper, visiting physician at Bellevue and Minto Hospitals, and a specialist in cerebrospinal meningitis. The commission will not do the active work. Other physicians who have cases of spinal meningitis will be asked to make experiments and tests, and to send them

to the commission. The commission will pass on them and devise means, if possible, to alleviate the alarming spread of the disease.—*American Medicine*.

Cerebro - Spinal Meningitis. — On several occasions recently we have referred to the ravages produced in New York City by the present epidemic of cerebro-spinal meningitis. The efforts of the department of health to secure a municipal investigation have at last been crowned with success, and the city fathers have appointed a commission representing all the medical schools in the city, and have provided the commission with an initial appropriation of \$5,000, with the promise of more if necessary. The department may well be alarmed, as each week shows a steady increase in the number of deaths over the week preceding. For the week ending March 11th the total mortality from this one disease was 76, as against 58 for the week preceding. The disease, which was at first confined to the East Side, has now spread to other parts of the city, and has broken out in other cities, notably Philadelphia and New Haven. The commission consists of the following well-known physicians: William M. Polk, chairman, dean of Cornell Medical College; Walter B. James, William P. Northup, Simon Flexner, head of the Rockefeller Institute; J. M. VanCott, E. K. Dunham, pathologist of Carnegie Laboratory, and W. K. Draper. If anything worth while can be accomplished in lessening the spread or the mortality of this infection, it surely ought to be done by this eminent body of scientists.

Attention was called last week to the work that is being done in the treatment of cerebro-spinal meningitis by injections (large injections) of the diphtheria antitoxin. The first efforts of the commission will probably be to investigate this method thoroughly in a large number of cases in different hospitals, and thus satisfy themselves of the truth of the claims set forth by the discoverers. We are beginning to believe that the disease is to a certain degree contagious, in that Drs. A. R. Craig, of Philadelphia, and J. A. Moore, of New Haven, have recently succumbed to it in the line of duty. This is directly contrary to the teaching of Osler, who, in his Cavendish lecture of 1899, stated that he knew of no case in which a physician or nurse in attendance had been attacked or had been infected. It would seem from this recent experience that, while "waiting for something to turn up," it would be well to apply vigorously those principles of hygiene of which we are aware, namely, thorough disinfection of all discharges from the throat, nose and lung, and prompt separation of the sick from the well.—*Lancet Clinic*.

A Test of Christian Science.—A bill has been introduced in the Iowa Legislature forbidding Christian Science "healers" to practice their art in the state under penalty of imprisonment in the penitentiary. The introducer of the bill has promised to withdraw it if the Christian Scientists will cure the doorkeeper of the house of deafness. Some of the "healers" are not willing to accept the challenge, but others believe that

this is the appointed time to make a great demonstration of their powers in the most public way, and propose to organize a concert of prayer and hard thinking for removal of the doorkeeper's belief that he cannot hear.

Cerebro-spinal Meningitis in Cattle.

—Paul Shekwana, Bacteriologist of the Iowa State Board of Health, Iowa City, Iowa.—The object of this article is to draw the attention of the medical profession as to the possible sources from which cerebrospinal meningitis may spread. Until very recently it was believed by all that this disease occurred only in man. Lately, however, a few cases have been recorded by the Minnesota State Board of Health, which show that it occurs in cattle also.

On February 20, 1905, Dr. H. E. Talbot of Des Moines, submitted the brains of two cattle to be examined at the laboratory of the Iowa State Board of Health in Iowa City. This gentleman stated that a number of cattle had been dying in the neighborhood of Colfax of an epidemic of a perplexing disease, which he thought to be some form of meningitis. He wanted to know if it was infectious or contagious. Professor H. Albert, the director of the laboratory, and the writer inoculated a rabbit under the dura mater with i. c. c. of an emulsion made from the two brains. The animal died after thirty-six hours, showing before death and at the postmortem examination, all the signs and symptoms of cerebrospinal meningitis, retraction of the head, thrombosis of the blood vessels, softening of the brain, and exudate about the menin-

ges, etc. The microscopical and cultural examinations also proved it to be the disease in question. The slide preparations from both the original brains and from the brain of the rabbit inoculated by us, showed a great number of diplococcus intracellularis meningitidis, some within and some outside the cells.

From this case and those examined by the Minnesota Board of Health, it is evident that the disease is much more widely distributed than it was at first supposed to be. Therefore, it becomes a subject of the greatest importance and interest to all medical men, as well as to the public in general, to know the sources from which the disease may spread and thus to guard against infection from it.

We know for certain that cerebrospinal meningitis is an infectious disease, occurring generally in epidemics in man; but now we have reasons to believe that it occurs in cattle as well. Whether man infects cattle or cattle infects man, it cannot be definitely said, but certain it is that the disease attacks both animals. From this fact it can be reasonably inferred that one mammal infects the other and vice versa.

The question then arises: Is it not quite possible that cattle have been the source of infection in some of the epidemics occurring in man? In cerebrospinal meningitis there is usually a discharge from the nose, and this discharge contains diplococcus intracellularis meningitidis, and thus becomes the principal source of infection. On account of this great danger, care should, therefore, be taken by all those who come in contact with cattle suffering from the disease.

Cerebrospinal meningitis, then, must be considered to be a malady which not only affects man but cattle as well. The disease probably affects other lower animals, too, though in regard to this point we have at present no definite knowledge.—*New York Medical Journal*.

Cheering Words for Home-Bound Consumptives.—For nearly four years now a most interesting experiment has been in progress on Ward's Island, in the city of New York, and may fairly be said to have passed the stage of experiment and become an established feature of practice in the Manhattan State hospital, East, under the enlightened and progressive management of Dr. A. E. Macdonald. It is that of treating the consumptive insane in tents. Dr. Macdonald's account of the experience has been published by the Charity Organization Society, in its Directory of Institutions and Societies dealing with tuberculosis in the United States and Canada, and by the National Association for the Study and Prevention of Tuberculosis. It has now been issued in pamphlet form.

It was at first supposed that the camp treatment would be practicable in the mild season only, but it has been found exceedingly satisfactory to continue it through the entire year. "The Ward's Island Camp," says Dr. Macdonald, "is but a few feet above the tide-water level, its site is swept in winter by winds of high velocity, coming over the ice-bound waters of the rivers and the sound which surround it and it suffers as much as, or more than, any other part of the city of New York from the

trying changes of temperature and humidity which are so characteristic of its climate." And he asks: "If, in spite of all these drawbacks, what has been done can be done, and that for insane patients, what may not be hoped from the extension of the same methods to the ordinary consumptive of sound mind, anxious for recovery and capable of giving intelligent assistance in the struggle?"

It was feared at the outset that both the patients and their friends would protest against the open-air treatment, but such protests have been very few, and, indeed, the cry now is for the early vernal restoration to it of the few who were returned to the buildings for the winter. The effect on the tuberculous trouble has been most gratifying—indeed, in one instance a man's weight was doubled—and both the patients and the nurses in the camps have enjoyed almost complete immunity from other pulmonary diseases; not a single case of pneumonia has occurred among them during the period, and colds have been unknown. In several instances the patients' mental condition has been much ameliorated and in a few wholly restored to the normal.—*New York Medical Journal*.

Cancer.—In spite of much time, thought and profound investigation, cancer remains an unsolved enigma. It is, indeed, the defiant sphinx of histological and pathological science, as well as the healing art. The careful study that has been bestowed upon the subject has, however, revealed many important features of cancer, in spite of the fact that one vital point—the cause—still escapes

our grasp. The ultimate causative factor in the life-history of a cancer cell is as great a mystery as the great primal cause of the universe. When the cause of a cancer shall have been discovered and demonstrated beyond peradventure, we may feel that we have secured a dominant position that commands the situation. Until then, the treatment must continue empirical.

What do we know? First—We know that cancer is a progressively fatal disease; unless arrested by some artificial intervention it will surely cause death.

Second—We know that cancer is primarily a local disease, and, if completely removed before constitutional infection has occurred, is within the possibility of cure.

Third—We know that early operation depends upon early recognition, and that the responsibility, therefore, rests primarily with the family physician. He can discharge this responsibility by keeping himself ever mindful of the possibility of the development of cancer and promptly submitting all doubtful or suspicious cases to a microscopic test, and, when once the diagnosis has been made, with the same promptness subjecting the patient to the most radical operation the condition demands or justifies. The family physician need not fear being denounced as an alarmist, as Mayo Robson in his Bradshaw lecture before the Royal College of Surgeons recently said: "It is better to alarm and cure than to lull into false security and have to operate later under less favorable conditions. It is certainly wrong to wait for a doubt-

ful growth to become unquestionably malignant."

Fourth—We know that clinical observation has established the fact that chronic irritation is the conditional, the exciting or predisposing cause of cancer. It, therefore, becomes possible to recognize a pre-cancerous condition, and by prompt intervention avail ourselves of prophylactic measures. Here the educational function of the physician has its highest expression. People should be taught that the pipe, cigarette inhalations and excessive smoking are productive of cancer of the lip, mouth and throat; that apparently simple spots and growths in or under the skin may be a source of danger to be promptly removed, or, at least, carefully watched. Injuries to the breast, or tumors therein, especially demand scientific professional attention. When we come to the uterus, where more or less serious injuries are so general and cancer so frequent, especial vigilance is imperative. Lacerations of the cervix, especially if extensive, should be repaired before the woman approaches the menopause. Another source of chronic irritation in the uterus which has been attracting attention of the best observers as a probable cause of cancer, is fibroid tumor. A number of cases of cancer of the fundus have been observed in maiden ladies (virgins), associated with fibroid tumor, in which the tumor was apparently the only source of irritation. Since attention has been attracted to this association of fibroid and cancer, many cases have been observed, and evidence in favor of a casual relation is steadily growing. If further ob-

servation confirms this hypothesis the dictum that all fibroid tumors of the uterus, large or small, and wherever situated, should be removed on discovery, will rest upon a still more secure foundation. Prompt operation in cases of fibroid tumor of the uterus will take its place as a prophylactic, not only against well-known degenerations and complications, but also against cancer.—*New York State Journal of Medicine.*

Syphilis in the Sudan.—A. Balfour says that this disease is exceedingly prevalent in the Sudan. In the time of the Dervishes it was considered rather an honor to have acquired infection. A lad was not a man till he had developed a chancre. The results of this ignorant and pernicious regime are deplorable. Patients do not visit the hospitals till they are masses of ulceration and necrosis. True, they make use of tureba, a native preparation of mercury found locally, and they even fashion cones for fumigation with it, but their treatment is not conducted on sound principles, and is probably more harmful than beneficial. Education, combined with proper sanitary measures, is the only remedy. The Sudanese are fond of their children, and if they could be made to understand how frequently they are themselves to blame for the pitiable condition of their offspring, be taught the dangers and crippling effects of the unchecked disease, and be instructed how to avoid acquiring it, and how much can be done by proper treatment when it is acquired, a great step would have been taken to ameliorate their sad

condition.—*Report of the Wellcome Research Laboratories at Khartoum.*

President Harper Operated On.—February 22, Dr. Wm. R. Harper, President of the University of Chicago, was operated upon by Dr. Charles McBurney of New York, and, according to a bulletin issued shortly after the operation and signed by Dr. Frank Billings, a condition of thickening of the posterior wall of the head of the colon and enlargement of the glands of the mesentery was found. The entire removal of the diseased tissue was deemed impossible by the surgeons, and the wound was closed. The bulletin states that "it was the opinion of Dr. McBurney and Dr. Bevan that the disease was carcinoma. It has been decided that President Harper shall be placed upon medical and x-ray treatment, with the reasonable hope that the disease may be checked. It is anticipated that President Harper will make a speedy convalescence."—*Medical Record.*

Intussusception of the Appendix Vermiformis.—George Emerson Brewer, M. D. (New Yor), reports the case of a female, aged twenty-two, who was admitted to the Roosevelt Hospital in the spring of 1904, suffering from symptoms of acute appendicitis. The abdomen was opened, and a prolonged search for the appendix was made without finding any trace of the organ. Five months later the patient again presented herself, complaining of constant pain and tenderness in the right iliac fossa. The abdomen was again opened, the ileo-cæcal region dissected free from the

mass of adhesions and thoroughly inspected. No trace of an appendix could be found, but on palpating the cæcum an elongated oval body could be felt within its lumen. The intestine was opened by longitudinal incision, and the inverted appendix was found projecting from its attachment to the interior extremity of the cæcum. The mass was removed and the wound in the cæcum and colon sutured. The patient made a satisfactory recovery, and was entirely relieved of her symptoms. The pathological report showed the specimen to be an inverted appendix.—*American Medicine*.

Compulsory Vaccination is Not Unconstitutional.—The United States Supreme Court has recently decided that compulsory vaccination ordered by local boards of health on authority of state legislatures is valid, because it is for the public good. The constitutional guarantee of personal liberty, the court holds, is not infringed. The case was brought by a man of Cambridge, Massachusetts, who declined to submit to vaccination in an outbreak of smallpox, and was fined. He contended that the law was contrary to the preamble to the Constitution, its spirit, and to the fourteenth amendment; that vaccination did not protect, and that it was dangerous, sometimes causing permanent injury to health and occasionally death. In delivering the opinion of the court Justice Harlan said the Constitution did not grant to one person or a minority residing in any county, and enjoying the benefits of its local government, the liberty thus to dominate the majority in such cases. The

matter was primarily one of the state regulation, and did not ordinarily concern the national government. The liberty secured by the Constitution to every person within its jurisdiction did not mean that each person should be at all times and in all circumstances wholly freed from restraint.—*Medical Record*.

Adulteration of Candy.—A report to State Commissioner of Agriculture Charles A. Wieting by Dr. Joseph F. Geisler and Professor E. G. Love shows that the cheaper candy sold in the city is adulterated to a surprising degree. In more than two hundred samples taken from New York stores and submitted for analysis paraffin was found in caramels, chocolates and molasses candy; ordinary varnish was discovered as a coating for chocolates; aniline red and blue were detected as a coloring in gum drops and sticks of candy, while glucose was found in nearly all the cheap confections. The report included analysis of maple sugar, jellies, catsup and honey. Of sixty-nine catsups all but one showed added color; a sample of maple sugar contained at least 90 per cent. of cane sugar, and the honey examined was largely adulterated with cane sugar or glucose.—*Medical Record*.

A Source of Dissecting-Room Material.—According to an Indiana newspaper, the removal of an axe factory has cut down very largely the supply of anatomical material of Indianapolis medical colleges. The workers in the factory were largely negroes, among whom pulmonary diseases, due to work at the grinding machines,

were very common. Nearly all had insurance policies, which, before death, were usually assigned to some friend for the purpose of paying the funeral expenses. The money was usually converted to other uses, however, and the body allowed to go to the destination the law prescribes for paupers. The removal of the factory resulted in a prompt decrease of available cadavers.—*Medical Record*.

Disease Invades the City of Healers.

—Several of the prominent officers of Zion City have recently suffered severe illness, and some have died, and now it is said that Dowie himself has cancer, which he cannot cure or get cured by the extra-surgical methods of his list.

On February 21st the new tuberculosis dispensary at Johns Hopkins Hospital was opened with appropriate exercises. Dr. Henry Barton Jacobs, president of the Lænnec Society, made an address on the "Origin and Rise of Tuberculosis Dispensaries." Dr. Herman M. Riggs, medical director of the New York City Health Department, made an address on 'The Advantages of a Tuberculosis Dispensary.' Dr. Wm. Osler spoke on "Tuberculosis in the General Hospitals," offering the restriction which excludes consumptives from general

hospitals. Dr. Wm. H. Welsh also spoke. Mr. Henry Phipps, of Pittsburgh, through whose generosity the dispensary was built, was present and responded happily to the demand upon him for a speech. He deprecated the use of his name as a designation for the dispensary. After March 1st the regular clinical work of the dispensary will begin, Dr. Louis V. Hamman being in charge.—*Maryland Med. Journal*.

The hypodermic injection of brandy, whiskey or sulphuric ether is one of the best methods of combating intense shock and collapse, but the surgeon should always remember to inject them deep into the muscles, as they may cause sloughing of the skin if injected beneath it, and they should not be introduced in the neighborhood of any important nerve, as they have been known to cause paralysis or neuritis.—*Journal Medicine and Science*.

Gauze Drains.—Gauze drains left in wounds should not, as a rule, be removed until the fourth day, when the adhesions have liquified and the gauze is easily removed. In the uterus gauze should never be left in more than twenty-four hours, owing to danger of sepsis.—*International Journal of Surgery*.

BOOK REVIEWS.

Transactions of the Minnesota State Medical Association: Thirty-sixth Annual Meeting, 1904. This volume is very neatly printed, 416 pages, with 8 illustrations, and 40 original articles.

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American Alkalometry. Volume IV. A Digest of Clinic Teachings. 1902 and 1903. Edited by W. C. Abbott and W. F. Waugh.

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Gynecology, Medical and Surgical. By Henry J. Garrigues, A. M., M. D., Gynecologist to St. Mark's Hospital in New York City; Consulting Obstetric Surgeon to the New York Maternity Hospital; Consulting Physician to the New York Mothers' Home and Maternity; Honorary Fellow of the American Gynecological Society; Honorary Fellow of the Obstetric Society of Edinburgh; Honorary Member of the College of Physicians of the German Dispensary; ex-President of the German Medical Society; formerly Professor of Gynecology and Obstetrics in the School for Clinical Medicine, and Professor of Obstetrics in the Post-Graduate School and Hospital. With 343 illustrations.

This work is carefully rewritten and revised, and much new matter has been added. It is a work that will meet the necessities of the specialist and the general practitioner of medicine in equal degree. J. B. Lippincott Company, Philadelphia. 1905. \$3.00 net.

The Medical Examination for Life Insurance and Its Associated Clinical Methods, with Chapters on the Insurance of Substandard Lives and Accident Insurance. By Charles Lyman Greene, M. D., St. Paul. Second edition, revised and enlarged, with 99 illustrations. Philadelphia: P. Blakiston's Son & Co. 1905. \$4.00 net.

Life insurance examination has become a quite important means of revenue to the practicing physician, and yet very little adequate instruction in this branch is given in our medical schools. This book covers this particular field of medicine and covers it well, thus filling a real need. Students and practitioners alike will find the work just what they need in qualifying themselves to become medical examiners for life insurance companies.

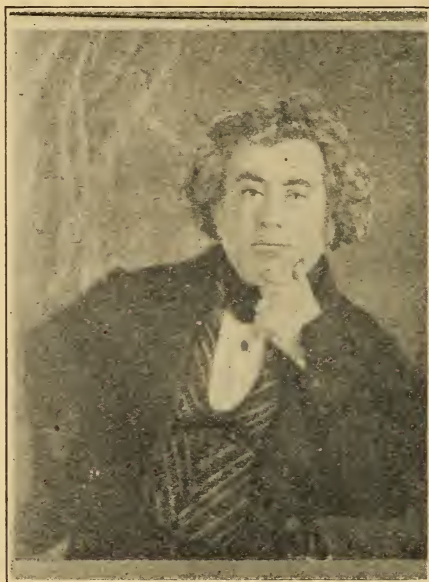
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International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, pediatrics, obstetrics, gynecology, orthopedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners; by leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A. Volume I. Fifteenth series. 1905. J. B. Lippincott Company. \$2.00 net.

BIOGRAPHICAL SKETCH.

Robley Dunglison, the well-known American physician, was born in Keswick, England, January 4, 1798. He was educated in England, studying medicine at London and Erlangen. In 1824 he came to America to accept

institute of medicine in Jefferson Medical College in Philadelphia. Among his publications were twenty volumes treating of subjects connected with medical science. They were widely circulated and highly valued in their



ROBLEY DUNGLISON.

the chair of medicine in the University of Virginia. After occupying this professorship for nine years he accepted the chair of therapeutics in the University of Maryland. Two years later he became professor of the

day, one of their number, the Dictionary of Medical Science and Literature, being republished as late as 1874. Dunglison died in Philadelphia, April 1, 1869.

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COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Adair.....	James Hanks.....	Brashear.....	E. C. Grim.....	Kirksville.
Andrew.....	D. B. Bryant.....	Savannah.....	C. O. Jeffries.....	Savannah.
Atchison.....	G. W. Lott.....	Ulesboro.....	A. McMichael.....	Rockport.
Audrain.....	C. A. Rothwell.....	Mexico.....	E. S. Cave.....	Mexico.
Barton.....	G. D. Allee.....	Lamar.....	J. L. McComb.....	Kenoma.
Bates.....	A. E. Lyle.....	Butler.....	E. N. Chastain.....	Rich Hill.
Benton.....	G. S. Greeson.....	Lincoln.....	S. O. Davis.....	Warsaw.
Boone.....	J. E. Thornton.....	Columbia.....	W. A. Norris.....	Columbia.
Buchanan.....	P. I. Leonard.....	St. Joseph.....	Chas. W. Fassett.....	St. Joseph.
Butler.....	W. A. Kendall.....	Poplar Bluff.....	J. J. Norwine.....	Poplar Bluff.
Caldwell.....	C. C. Leeper.....	Braymer.....	Tinsley Brown.....	Hamilton.
Callaway.....	J. F. Harrison.....	Fulton.....	Martin Yates.....	Fulton.
Camden.....	G. M. Moore.....	Linn Creek.....	G. T. Myers.....	Macks Creek.
Cape Girardeau.....	H. L. Cunningham.....	Cape Girardeau.....	E. P. Porterfield.....	Cape Girardeau.
Carroll.....	W. C. Baird.....	Bogard.....	R. F. Cook.....	Carrollton.
Carter-Shannon.....	F. Hyde.....	Eminence.....	J. A. Chilton.....	Van Buren.
Cass.....	R. D. Ramey.....	Garden City.....	J. S. Triplett.....	Harrisonville.
Chariton.....	H. C. Tatum.....	Brunswick.....	C. A. Jennings.....	Salisbury.
Clark.....	H. W. Harris.....	Winchester.....	A. C. Bridges.....	Kahoka.
Clay.....	L. J. Jones.....	Linden.....	F. H. Matthews.....	Liberty.
Clinton.....	John Sturgis.....	Perrin.....	E. A. Colley.....	Platte City.
Cole.....	J. P. North.....	Jefferson City.....	G. Etmueller.....	Jefferson City.
Cooper.....	P. L. Hurt.....	Boonville.....	R. S. Holman.....	Boonville.
Crawford.....	W. A. Metcalf.....	Steelville.....	A. H. Horn.....	Steelville.
Daviess.....	N. D. Dunham.....	Pattonsburg.....	M. A. Smith.....	Gallatin.
Dunklin.....	J. F. Kelley.....	Kennett.....	G. L. Johnson.....	Kennett.
Franklin.....	H. A. Booth.....	Pacific.....	A. C. Brown.....	Moselle.
Gasconade-Marie-Usage.....	J. J. Ferrell.....	Owensville.....	J. W. Nieweg.....	Lois.
Greene.....	W. P. Patterson.....	Springfield.....	Robt. M. Cowan.....	Springfield.
Grundy.....	J. A. Asher.....	Trenton.....	W. D. Fulkerson.....	Trenton.
Henry.....	Jno. H. Britts.....	Clinton.....	F. M. Douglas.....	Clinton.
Holt.....	B. T. Quigley.....	Mound City.....	J. F. Chandler.....	Forest City.
Howard.....	A. W. Moore.....	Fayette.....	C. W. Watts.....	Fayette.
Howell.....	J. W. Bingham.....	Pottersville.....	H. C. Shuttee.....	West Plains.
Iron.....	R. W. Gay.....	Ironton.....	Ira A. Marshall.....	Ironton.
Jackson.....	Robt. T. Sloan.....	Kansas City.....	Max Goldman.....	Kansas City.
Jasper.....	A. B. Freeman.....	Joplin.....	J. T. Stamey.....	Joplin.
Jefferson.....	W. H. Farrer.....	DeSoto.....	H. Will Elder.....	DeSoto.
Johnson.....	M. P. Shy.....	Knobnoster.....	E. H. Gilbert.....	Warrensburg.
Knox.....	S. S. Brown.....	Edna.....	Henry J. Jurgan.....	Edna.
Laclede.....	J. M. Billings.....	Lebanon.....	J. A. McComb.....	Lebanon.
Lafayette.....	P. S. Fulkerson.....	Lexington.....	C. T. Ryland.....	Lexington.
Lincoln.....	S. R. McKay.....	Troy.....	Wm. P. Smith.....	Troy.
Linn.....	K. V. Stanley.....	Brookfield.....	D. F. Howard.....	Brookfield.
Livingston.....	David Gordon.....	Chillicothe.....	J. F. Cherrington.....	Chillicothe.
McDonald.....	E. F. Doty.....	Anderson.....	M. L. Sellers.....	Anderson.
Macon.....	E. S. Smith.....	Macon.....	G. B. Rush.....	Macon.
Madison.....	G. W. Greenwood.....	Fredericktown.....	C. U. Davis.....	Fredericktown.
Marion.....	R. H. Goodier.....	Hannibal.....	F. Janet Reid.....	Hannibal.
Mercer.....	H. P. Chesmore.....	Princeton.....	C. R. Buren.....	Princeton.
Miller.....	S. P. Hickman.....	Uman.....	G. D. Walker.....	Eldon.
Mississippi.....	A. J. Martin.....	East Prairie.....	W. P. Howle.....	Charleston.
Moniteau.....	J. B. Stewart.....	Clarksburg.....	W. R. Patterson.....	Tipton.
Monroe.....	S. M. Brown.....	Monroe City.....	M. C. McMurry.....	Paris.
Montgomery.....	J. L. Jones.....	Jonesburg.....	W. M. Wheeler.....	High Hill.
Morgan.....	W. L. Hatler.....	Barnett.....	J. T. Beale.....	Versailles.
Nodaway.....	J. A. Larrabee.....	Barnard.....	F. R. Anthony.....	Maryville.
Newton.....	J. W. Lamson.....	Neosho.....	Horace Bowers.....	Neosho.
Pemiscot.....	D. B. Crowe.....	Caruthersville.....	J. G. Luten.....	Caruthersville.
Perry.....	T. M. Hudson.....	Perryville.....	F. M. Vellels.....	Perryville.
Pettis.....	W. C. Overstreet.....	Sedalia.....	W. J. Ferguson.....	Sedalia.
Phelps.....	W. H. Breuer.....	St. James.....	S. L. Baysinger.....	Rolla.
Pike.....	M. O. Biggs.....	Bowling Green.....	T. Guy Hetherlin.....	Louisiana.
Platte.....	R. P. Davis.....	Woodruff.....	G. C. Coffey.....	Platte City.
Pulaski.....	W. L. Ragan.....	Richland.....	G. W. Quick.....	Crocker.
Putnam.....	C. H. Carryer.....	Hartford, Mo.....	T. A. Townsend.....	Unionville.
Ralls.....	O. B. Hicklin.....	New London.....	T. J. Downing.....	New London.
Randolph.....	G. O. Cuppage.....	Moberly.....	W. M. Dickerson.....	Renick.
Ray.....	Chas. B. Shotwell.....	Richmond.....	L. D. Greene.....	Richmond.
Reynolds.....	J. M. Lowery.....	Centerville.....	T. W. Chilton.....	Corridon.
Saline.....	D. C. Gore.....	Marshall.....	D. F. Bell.....	Marshall.
St. Charles.....	J. R. Mudd.....	St. Charles.....	A. A. Gossow.....	St. Charles.

County Societies in Affiliation with the State Medical Association.—Cont'd.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
St. Clair	W. Cline	Appleton City	E. D. Miles	Osceola.
St. Genevieve	M. Andre	St. Genevieve	F. E. Hinch	St. Genevieve.
St. Louis	F. L. Henderson	Century Bldg.	T. A. Hopkins	Century Bldg.
St. Louis Co.	H. G. Wyer	Kirkwood	H. T. Randle	Clayton.
Schuyler	J. T. Jones	Queen City	H. E. Gerwig	Downing.
Scotland	W. E. Alexander	Memphis	O. F. Pile	Memphis.
Shelby	H. C. Vaughn	Shelbina	A. M. Wood	Lentner.
Stoddard	D. R. Corbin	Bloomfield	Jno. Ashley	Bloomfield.
Sullivan	J. C. Kessenger	Milan	J. S. Montgomery	Milan.
Vernon	H. C. Jarvis	Schell City	T. B. Todd	Richards.
Warren	W. J. Alexander	Marthasville	E. A. Fluesmeier	Wright City.
Washington	J. A. Eaton	Belgrade	W. S. Smith	Belgrade.
Wayne	L. M. Pettit	Greenville	I. N. Barnett	Piedmont.

MEETINGS OF COUNTY MEDICAL SOCIETIES.

COUNTY.	DATE OF MEETING.
Adair	Quarterly. Last Tuesday, Jan., Apr., July, Oct.
Andrew	Monthly. First Wednesday.
Atchison	Quarterly. January, April, July, October.
Audrain	Monthly. First Monday.
Barton	Quarterly. First Thursday, May, Aug., Nov., Feb.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Semi-Monthly. First and Third Saturday.
Butler	Weekly. Fridays.
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. Second Monday, April, July, Oct., Jan.
Cape Girardeau	Monthly. Second Wednesday.
Carroll	Monthly. Second Tuesday.
Carter-Shannon	Quarterly. February, May, August, November.
Cass	Quarterly. First Thursday of March, June, Sept., Dec.
Chariton	Monthly. Last Thursday.
Clark	1st Mondays Feb., Apr., June, Aug., Oct., Dec.
Clay	Monthly. Last Monday.
Clinton	Monthly.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper	Monthly. First Tuesday.
Crawford	Quarterly. First Tuesday, Apr., July, Oct., Jan.
Daviess	Quarterly. January, April, July, October.
Dunklin	Monthly. First Tuesday.
Franklin	Monthly. First Tuesday.
Gasconade-Maries-Osage	Monthly.
Greene	Weekly. Saturday.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Quarterly. January, April, July, October.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of Dec., Feb., Apr., June, Aug. Oct.
Iron	Monthly. First Saturday.
Jackson	Semi-Monthly. Second and Fourth Thursdays.
Jasper	Semi-Monthly. First and Third Mondays.
Jefferson	Monthly. Fourth Tuesday.
Johnson	Quarterly. June, September, December, March.
Knox	Monthly. First Monday.
Laclede	Semi-Annually. First Mondays May and November.
Lafayette	Monthly. 2d Tuesday, Jan., Mch., May, July, Sept. Nov.
Lincoln	Quarterly. May, August, November, February.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Semi-Monthly. First and Third Monday.
Marion	Monthly. First Friday.
Mercer	Monthly. Second Thursday.
Miller	Quarterly. First Thursday, March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.

COUNTY	DATE OF MEETING.
Montgomery	Monthly.
Monroe	Quarterly. First Tuesday of April, July, Oct., Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Newton	Monthly. Second Tuesday.
Nodaway	Monthly. Second Tuesday.
Pemiscott	Quarterly. First Tuesday, Jan., April, July, Nov.
Perry	Monthly. First Wednesday.
Pettis	Semi-Monthly. First and Third Monday.
Phelps	Quarterly. March, June, September, December.
Pike	Monthly.
Platte	Monthly. First Wednesday.
Pulaski	Monthly.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly. Second Tuesday.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Charles	Monthly.
St. Clair	Quarterly. Second Tues. of March, June, Sept., Dec.
St. Genevieve	Monthly. Second Wednesday.
St. Louis	Weekly. Saturdays.
St. Louis County	Monthly. Second Wednesday.
Schuyler	Semi-Annually. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	Quarterly. 1st Wednesday, March, June, Sept., Dec.
Sullivan	Monthly.
Vernon	Quarterly. 1st Tuesday, March, June, Sept. and Dec.
Warren	Monthly.
Washington	Monthly. First Saturday.
Wayne	Monthly.

AMERICAN MEDICAL ASSOCIATION

Next Annual Meeting at Portland, Oregon, July 11th to 14th, 1905.

President-Elect: LOUIS S. McMURTRY, Louisville, Ky.

President: JOHN H. MUSSER, Philadelphia, Pa.

First Vice-President: EDWARD JACKSON, Denver, Colo.

Second Vice-President: JAMES HALL BELL, San Antonio, Texas.

Third Vice-President: F. C. SHATTUCK, Boston, Mass.

Fourth Vice-President: B. C. PENNINGTON, Atlantic City, N. J.

Secretary and Editor: GEORGE H. SIMMONS, 103 Dearborn Ave., Chicago.

Treasurer: FRANK BILLINGS, Chicago.

MISSOURI STATE MEDICAL ASSOCIATION.

Next Annual Meeting, Jefferson City. May, 1906.

President: D. C. GORE, Marshall.

Vice-Presidents:

C. D. AVERY, Troy; J. P. BURKE, Laeale; F. A. GLASGOW, St. Louis; T. F. LOCKWOOD, Butler; E. LOWREY, Excelsior Springs.

Secretary: C. M. NICHOLSON, St. Louis.

Assistant Secretary: E. J. GOODWIN, St. Louis.

Treasurer: J. FRANKLIN WELCH, Salisbury.

COUNCILLOR DISTRICTS AND LIST OF UNORGANIZED COUNTIES.

FIRST DISTRICT.—F. B. HILLER; solidly organized.

SECOND DISTRICT.—J. B. BRUMMALL; solidly organized.

THIRD DISTRICT.—E. H. MILLER; DeKalb, Gentry, Harrison, Worth.

FOURTH DISTRICT.—C. H. WALLACE.

FIFTH DISTRICT.—L. W. DALLAS; solidly organized.

SIXTH DISTRICT.—WOODSON MOSS; solidly organized.

SEVENTH DISTRICT.—W. B. DORSETT.

EIGHTH DISTRICT.—F. J. LUTZ.

NINTH DISTRICT.—B. M. HYPES; St. Francois.

TENTH DISTRICT.—J. J. NORWINE; New Madrid, Ripley.

ELEVENTH DISTRICT.—J. S. PORTERFIELD, Jr.; Bollinger, Scott.

TWELFTH DISTRICT.—W. S. ALLEE; solidly organized.

THIRTEENTH DISTRICT.—R. D. HAIRE; Hickory.

FOURTEENTH DISTRICT.—M. P. OVERHOLSER; solidly organized.

FIFTEENTH DISTRICT.—A. R. SNYDER; Dade, Cedar.

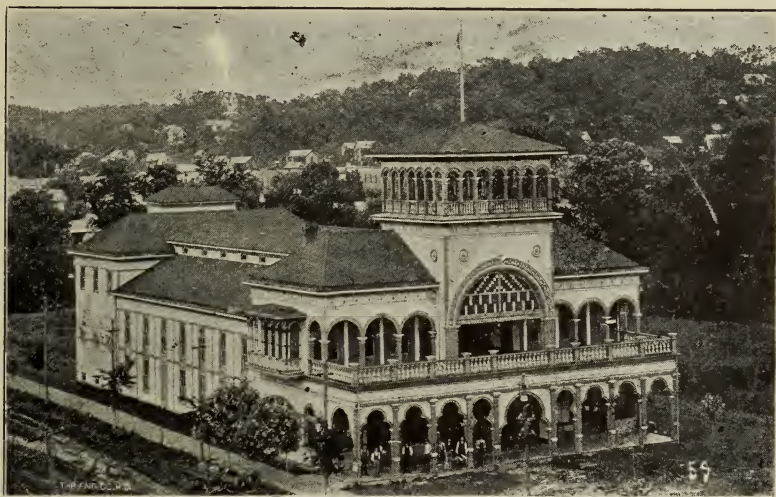
SIXTEENTH DISTRICT.—R. L. JOHNSON; Dent.

SEVENTEENTH DISTRICT.—J. E. TEFFT; Christian, Stone, Barry, Lawrence, Webster, Polk, Taney.

EIGHTEENTH DISTRICT.—H. C. SHUTTEE; Ozark, Oregon, Texas, Wright, Douglas.

ANNUAL MEETING

Missouri State Medical Association



AUDITORIUM. MEETING PLACE OF THE ASSOCIATION.

ON TO EXCELSIOR SPRINGS.

MAY 16, 17, and 18 the Annual Meeting of the Missouri State Medical Association will be held in the Music Hall at Excelsior Springs, a very attractive town in the western part of the state, noted for its warm hospitality, its intellectual refinement, its mineral springs and other advantages as a convention city. Hotel accommodations are good and rates reasonable. The railroads with their usual liberality have made a reduced rate of one fare and one-third for the round trip, and the Committee on Scientific Work have presented a program of exceptional excellence. It contains the names of many of the best known medical men of the state.

The first day will be devoted to meetings of the officers, including the House of Delegates and Judicial Council. As far as possible all business of the Annual Meeting will be transacted on that day so that the legislative bodies of the Association will have an opportunity of attending the scientific meetings on the second and third days.

Wednesday morning the meeting of the Association will be called to order at 9:30 o'clock, and after a brief address of welcome, the reading of papers and discussions will be begun. At the evening session, Wednesday, the president's address will be followed by a light luncheon, after which one or more papers will be read

Program.

TUESDAY, MAY SIXTEENTH.

House of Delegates called to order 10:30 A. M.
Judicial Council called to order 10:30 A. M.
Roll call and announcement of result.
Reading of minutes of previous meeting.
Reading of President's message and recommendations.
Report of Committee on Arrangements.
Election of Committee on Nominations.
Report of Secretary.
Report of Treasurer.
Report of Committee on Scientific Work.
Report of Committee on Public Policy and Legislation.
Report of Publication Committee.

REPORT OF COUNCILLORS.

1st District.....	Dr. F. B. Hiller, Kahoka.
2d District.....	Dr. J. B. Brummall, Salisbury.
3d District.....	Dr. E. H. Miller, Liberty.
4th District.....	Dr. C. H. Wallace, St. Joseph.
5th District.....	Dr. L. W. Dallas, Hunnewell.
6th District.....	Dr. Woodson Moss, Columbia.
7th District.....	Dr. W. B. Dorsett, St. Louis.
8th District.....	Dr. F. J. Lutz, St. Louis.
9th District.....	Dr. B. M. Hypes, St. Louis.
10th District.....	Dr. J. J. Norwine, Poplar Bluff.
11th District.....	Dr. W. S. Allee, Olean.
12th District.....	Dr. R. D. Haire, Clinton.
13th District.....	Dr. M. P. Overholser, Harrisonville.
14th District.....	Dr. A. R. Snyder, Joplin.
15th District.....	
16th District.....	Dr. R. L. Johnson, Rolla.
Unfinished business.	
New business.	

Any Councillor finding it impossible to be present to make his report showing the status of the profession in his district, is requested to forward his report to the Secretary.



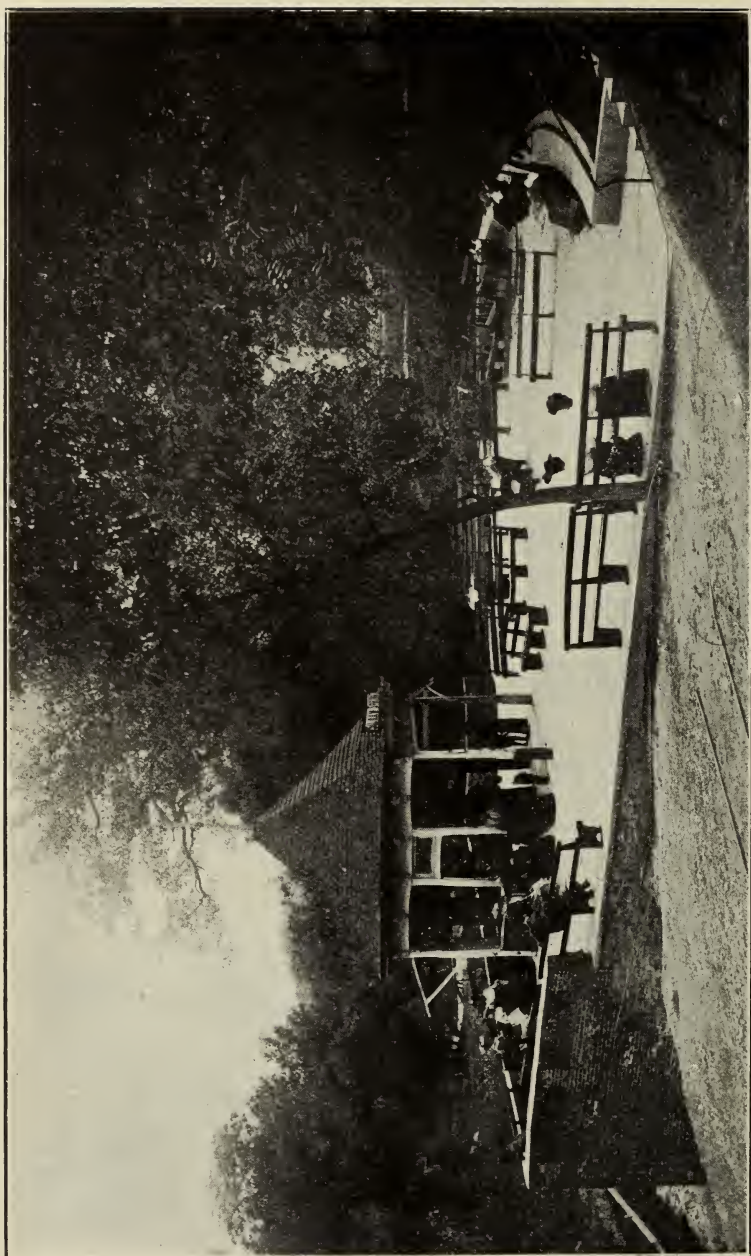
EXCELSIOR CLUB.
CHARTERED FOR USE OF THE ASSOCIATION.

Opening Program.

SCIENTIFIC BODY.

President's Address will be Read at Evening Session, Second Day.

- Meeting called to order by Dr. T. N. Bogart, Excelsior Springs
Chairman Committee on Arrangements.
- Invocation—Rev. John H. Hubbard, Excelsior Springs
- Address of Welcome—Judge W. E. Fowler, Excelsior Springs
- The reading of papers and the discussion of same will be commenced and continued under direction of committee on scientific work.
- Dr. W. E. Fischel, St. Louis
The Differential Diagnosis of Tumors in the Right Upper Quadrangle of the Abdominal Cavity.
Discussion opened by Drs. W. G. Moore, J. S. Meyer, W. J. Alexander, G. C. Crandall, Jno. Sturgis, S. R. McCabe, W. H. Farrar, P. S. Fulkerson, David Gordon.
- Dr. F. J. Lutz, St. Louis
The Limitation of Rest in Treatment of Traumatata.
Discussion opened by Drs. A. R. Kieffer, John C. Morfit, J. E. Tefft, F. R. Anthony, H. M. Grace, M. B. Clopton.
- Dr. Wm. Porter, St. Louis
Tuberculosis a Problem for the General Practitioner.
Discussion opened by Drs. W. G. Moore, J. R. Lemen, C. W. Watts, J. B. Norman, J. S. Meyer, J. D. Seba, John Severs.
- Dr. B. M. Hypes, St. Louis
Hydatiform Mole.
Discussion opened by Drs. T. J. Beattie, W. B. Dorsett, H. C. Crowell, H. S. Crossen.
- Dr. L. W. Dallas, Hunnewell, Mo.
Some Permanent Sequelæ of Grip.
Discussion opened by Drs. J. S. Triplett, C. A. Jennings, T. N. Bogart, J. D. Ford.
- Dr. A. J. Steele, St. Louis
The Present Status of Orthopedic Surgery.
Discussion opened by Drs. Herold W. Jones, Phil Hoffmann, J. F. Binnie, J. H. Tanquary, F. B. Hall.
- Dr. H. W. Loeb, St. Louis
Recent Advances in the Etiology and Treatment of Hay Fever.
Discussion opened by Drs. M. A. Goldstein, J. C. Buckwalter, Hal Foster, Jas. E. Logan.
- Dr. Harvey G. Mudd, St. Louis
Hypertrophy of the Prostate.
Discussion opened by Drs. Jacob Geiger, G. W. Broome, V. P. Blair, J. M. Billings, L. J. Dandurant, Martin Yates.
- Dr. W. G. Moore, St. Louis
The Present Status of Therapeutics.
Discussion opened by Drs. Finsley Brown, J. R. Lemen, G. M. Tuttle, G. C. Crandall, L. L. Shofield, Wm. Porter, H. W. Soper, L. W. Dallas.
- Dr. Bransford Lewis, St. Louis
Urinary Stone: Its Diagnosis and Treatment.
Discussion opened by Drs. J. Block, T. A. Hopkins, D. Morton, G. M. Phillips, Ernest G. Mark, Joseph L. Boehm, H. J. Scherck, G. W. Davis, C. F. Roberts.
- Dr. J. F. Binnie, Kansas City
Cysts in the Lower Peritoneal Cavity.
Discussion opened by Drs. H. S. Crossen, P. Y. Tupper, H. C. Dalton, F. J. Lutz, J. Y. Brown, W. A. McCandless, A. H. Meisenbach.
- Dr. J. R. Lemen, St. Louis
Hypertrophy of Heart Without Valvular Disease.
Discussion opened by Drs. Hugo Summa, W. G. Thompson, T. F. Lockwood, G. Ettmueller, Wm. E. Webb, W. G. Moore, J. T. Anderson, G. C. Crandall, L. W. Dallas.
- Dr. A. R. Kieffer, St. Louis
Uterine Displacement.
Discussion opened by Drs. G. R. Highsmith, E. A. Babler, A. E. Hertzler.
- Dr. C. Lester Hall, Kansas City
The Abdominal vs. The Vaginal Route in Pelvic Surgery.
Discussion opened by Drs. R. M. Funkhouser, W. A. McCandless, J. Y. Brown, A. H. Meisenbach.
- Dr. Joseph Grindon, St. Louis
Recurrent Zoster-like Herpes.
Discussion opened by Drs. A. H. Ohmann-Dumesnil, J. Phillip Knoche, J. M. Langsdale, H. M. Lyle, W. H. Frick.
- Dr. W. B. Dorsett, St. Louis
Transfusion.
Discussion opened by Drs. H. S. Crossen, C. A. Ritter, F. B. Hiller, J. A. Larabee, T. C. Boulware, B. A. Wilkes, G. C. Mosher.
- Dr. John Zahorsky, St. Louis
The Quotient of Energy as a Basis in Infant Feeding.
Discussion opened by Drs. L. J. Jones, H. S. Shuttee, C. W. Watts.
- Dr. R. M. Funkhouser, St. Louis
Remarks on Fractures Which are More or Less Frequent and Their Treatment.
Discussion opened by Drs. O. B. Campbell, A. R. Kieffer, F. Burke, W. D. Halliburton, Roland Hill, V. P. Blair, W. Bartlett.



SILOAM SPRINGS,

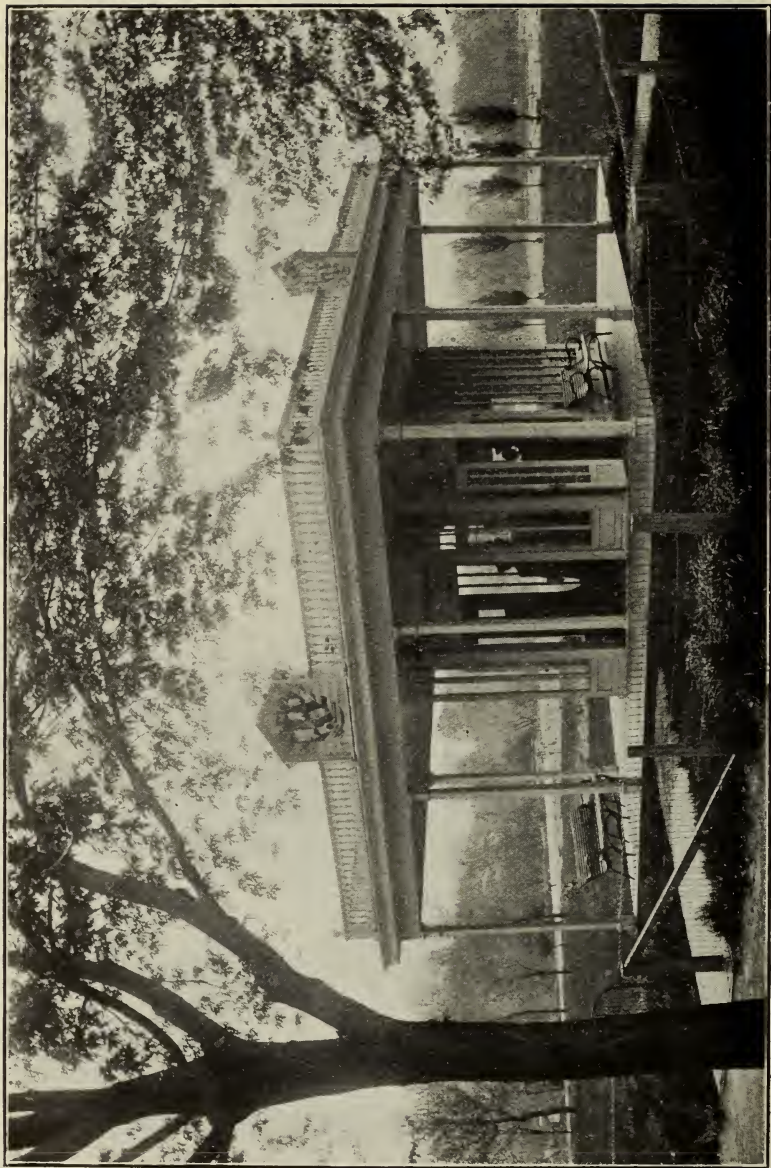
SCIENTIFIC PROGRAM

CONTINUED.

Dr. H. C. Dalton,	St. Louis
Mistakes in Diagnosis of Appendicitis. Discussion opened by Drs. Jacob Geiger, Francis Reder, J. P. Hennerich, W. C. G. Kirchner, T. E. Potter, W. S. Wallace, W. G. Thompson.	
Dr. H. Tuholske,	St. Louis
Personal Experience in Arterioplasty. Discussion opened by Drs. Jacob Geiger, J. F. Binnie, C. M. Nicholson.	
Dr. John Punton,	Kansas City
Neurasthenia, Its Complications and Treatment. Discussion opened by Drs. D. S. Booth, F. F. Fry, A. B. Miller.	
Dr. E. H. Miller,	Liberty
Puberty. Its Benefits and Dangers. Discussion opened by Dr. H. M. Pollard.	
Dr. Roland Hill,	St. Louis
Benign Tumors of the Breast. Discussion opened by Drs. J. D. Ford, R. M. Funkhouser, E. A. Babler, J. T. Jones, A. E. Hertzler.	
Dr. F. B. Hiller,	Kahoka
Cardiac Therapy. Discussion opened by Drs. G. P. Wortham, Geo. P. Williams.	
Dr. Howard Hill,	Kansas City
An Anatomical Method of Restoration of the Torn Perineum. Discussion opened by Drs. Frank A. Glasgow, W. B. Dorsett, B. M. Spotts.	
Dr. T. F. Lockwood,	Butler
Science of Medicine a Looted Profession.	
Dr. E. A. Babler,	St. Louis
Rectal Palpation. Discussion opened by Drs. P. S. Tolbert, J. P. Edmonson.	
Dr. T. N. Bogart,	Excelsior Springs
Use and Abuse of Massage in the Treatment of Rheumatism. Discussion opened by Drs. O. L. Turner, J. D. Seba.	
Dr. R. L. Johnson,	Rolla
The Best Time to Give Quinine.	
Dr. George Homan,	St. Louis
An Historical Sketch of the Movement to Establish a Sanatorium in Missouri for Persons Having Incipient Tuberculosis.	



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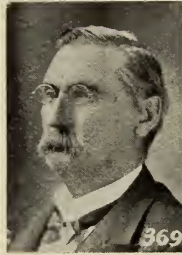
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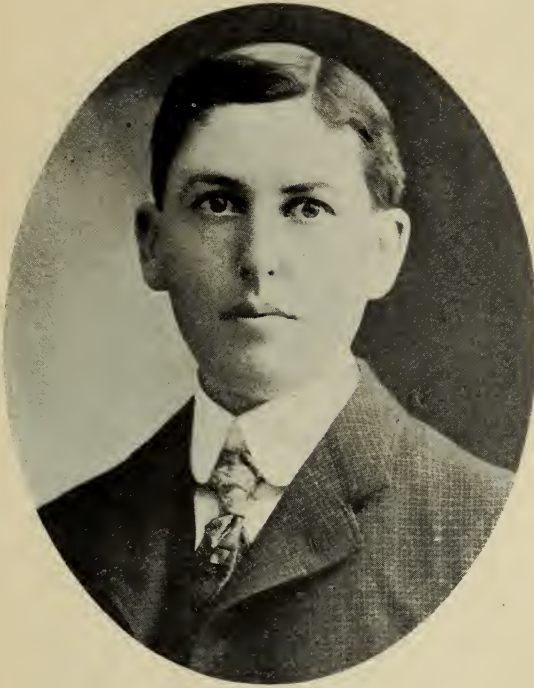


W. S. ALLEE,
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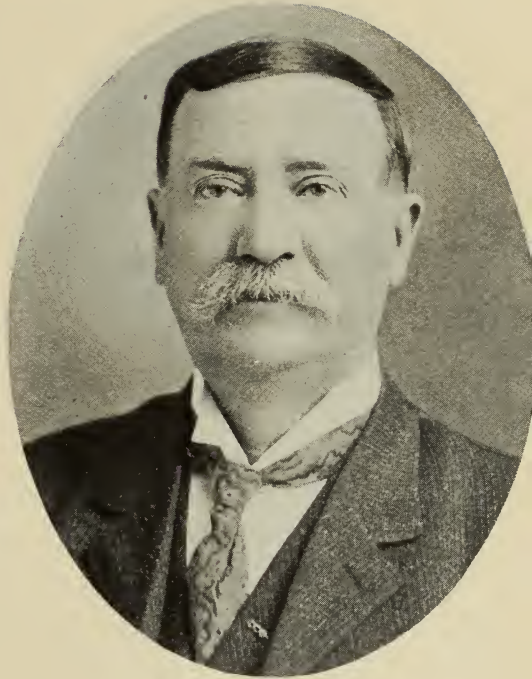


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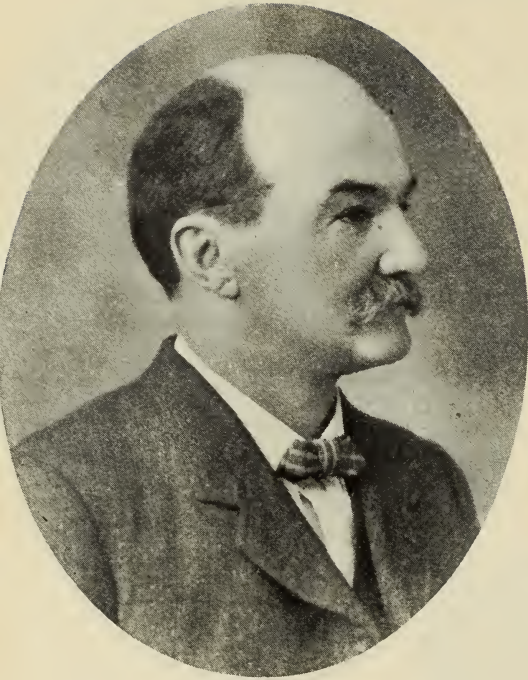


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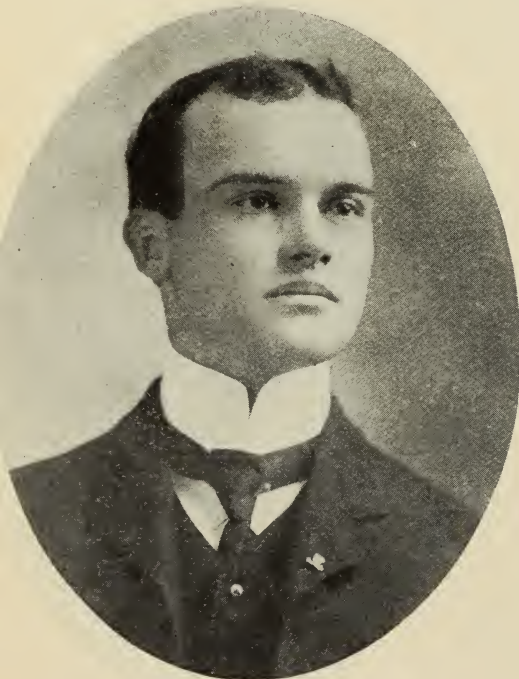
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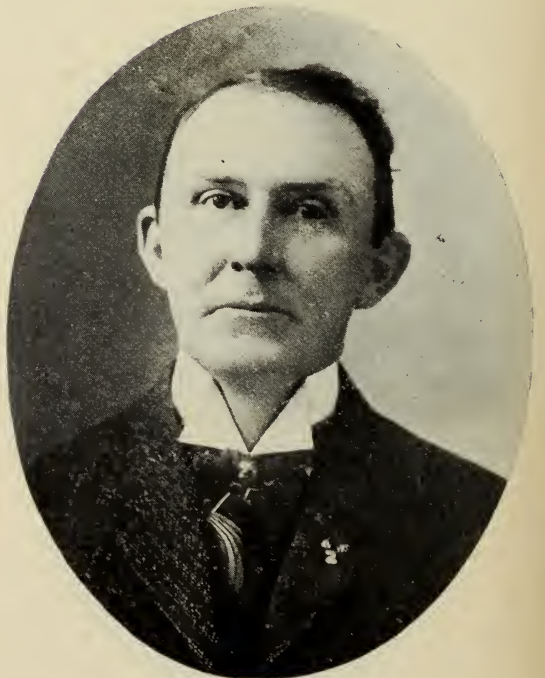
E. S. CAVE,
Mexico.



C. C. LEEPER,
Braymer.



P. L. TIPTON,
Cooter.

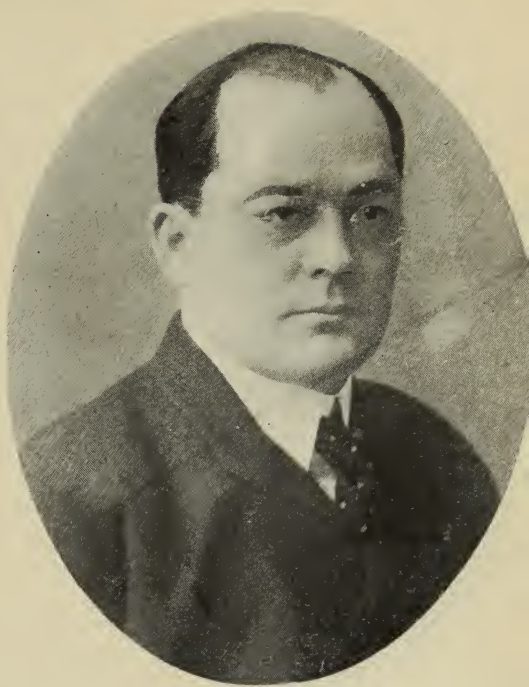


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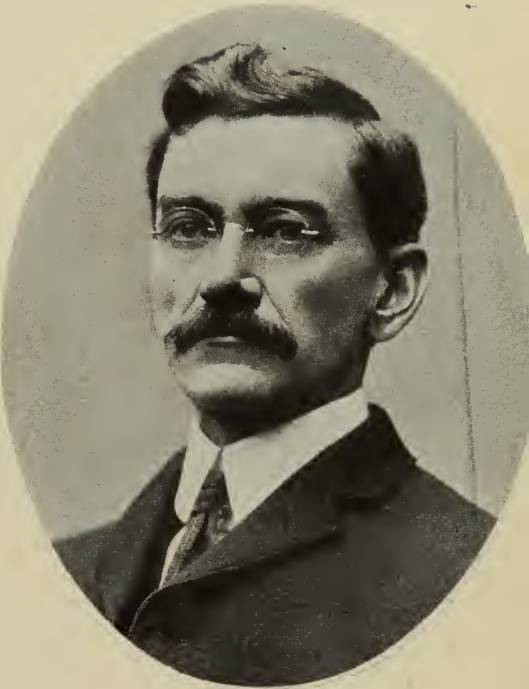
O. B. CAMPBELL,
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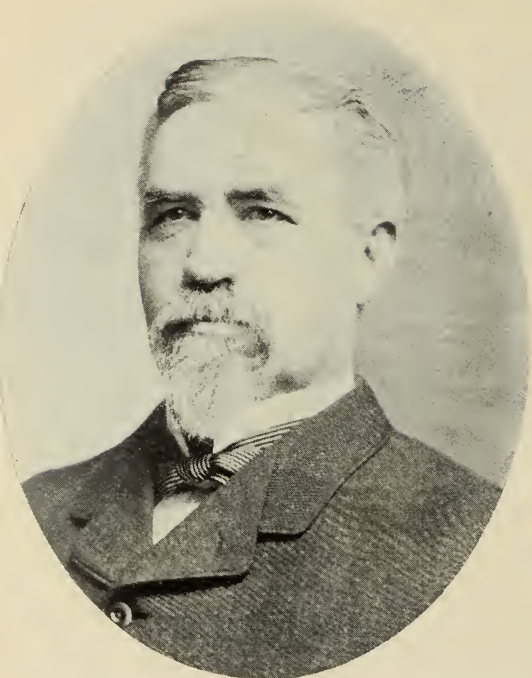


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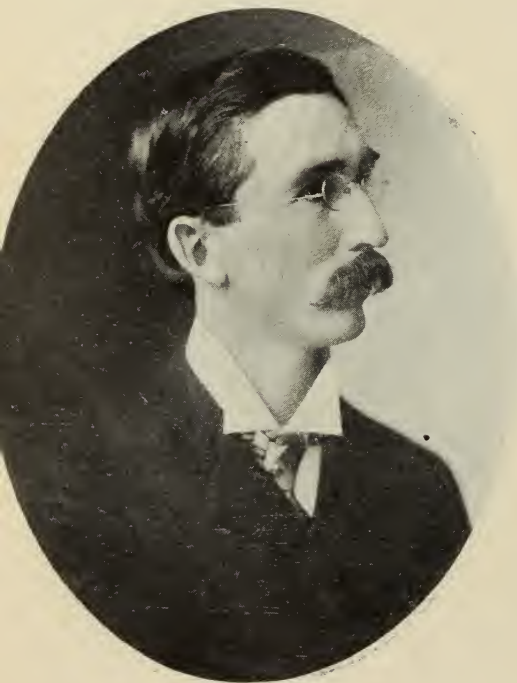
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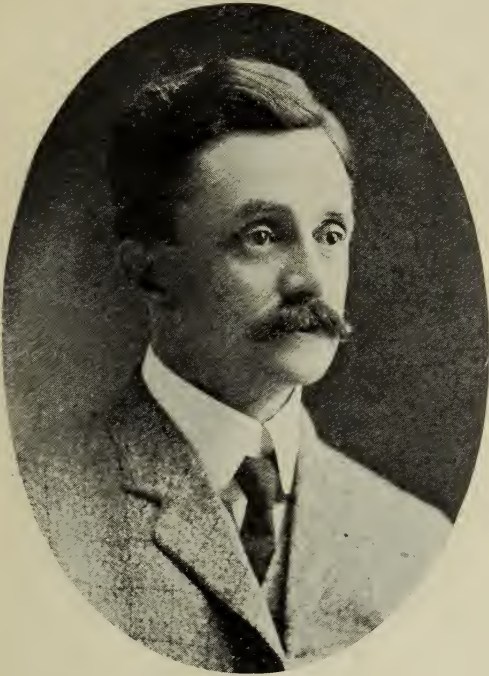


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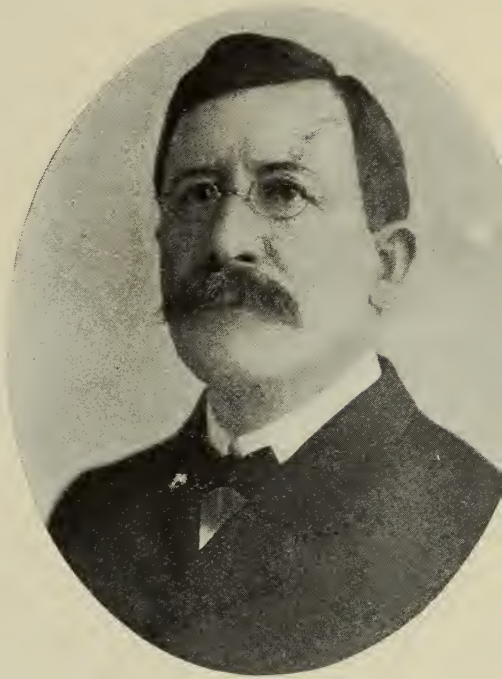


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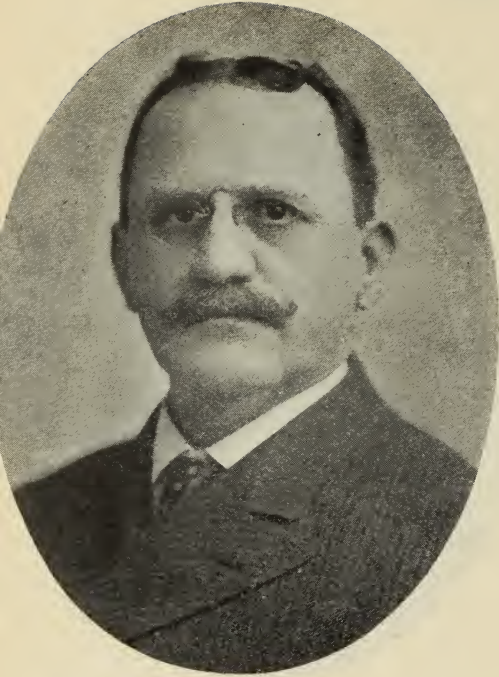


J. D. PORTERFIELD, JR.,
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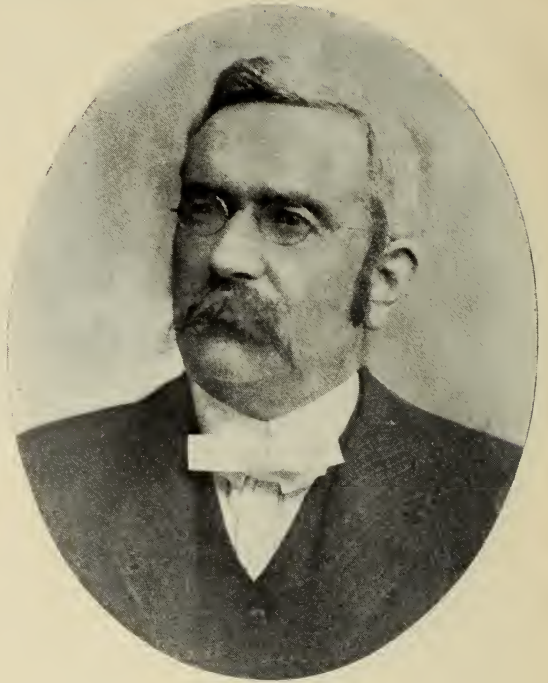


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